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TEACHER'S HAND-BOOK,

FOR THE

INSTITUTE AND THE CLASS-ROOM.

BY

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PRINCIPAL OF THE STATE NORMAL SCHOOL,

WINONA, MINN.



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P R E F A C E.

IN the preparation of this book it was no part of the author's aim to write merely that with which everybody would at once agree. In such a case there would be no necessity that it should be written. The world does not especially need to read the oft-told tale of that which it already believes. But free thought and free discussion are the soul of progress. Differences of opinion are the life of discussion, out of whose crucible must finally issue the pure gold of truth, the only Philosopher's Stone worthy of human seeking. If, therefore, what is here written shall serve to excite discussion, awaken interest, and quicken zeal in the great work of elevating the teachers of our country to that commanding position which they should ever be worthy to occupy in the public regard, its leading purpose will have been fully realized.

There are two characters, one or the other of whom must in the future occupy a conspicuous place in public attention, the educator and the warrior. Either the ballot or the bullet, the pen or the sword, will eventually dominate the destinies of mankind. Which of these

is mightier than the sword " only when used to raise up those whom the sword would strike down. And the educator will be more powerful than the soldier only when he rises to the full measure of his responsibilities and duties. Let him prove himself worthy of his vocation, and the people will respect him for his talents, honor him for his wisdom, and reward him for his fidelity to the highest of human trusts.

It is proper to add that the Hand-Book is not aimed at the graded systems of the cities as its objective. With a perfection of organization and a combination of advantages unknown in the country, the problem of education with them is reduced to its simplest terms. It will be strange indeed if they do not afford us the highest ideals, wrought up into the best attainable actuals. But the cities, with their population, constitute only a small part of the republic, while they are unceasingly reinforced by an influx from the rural population, the bone and sinew of the nation. Is not the character of these recruits a question of serious import ?

The country schools, on the other hand, demand our most earnest thought and our best efforts. This humble contribution is especially dedicated to the promotion of their interests. May it not altogether fail in its well-intended purpose.

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WILLIAM F. PHELPS.

STATE NORMAL SCHOOL,

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THE TEACHER'S HAND-BOOK.

PART I.

CHAPTER I.

PRELIMINARY CONSIDERATIONS.

1. Objects stated.—The primary object of the following pages is to aid the teacher in his arduous work. Such a result is to be accomplished, first, by an effort to improve one of the most important agencies for his professional instruction and, second, by furnishing a practical Hand-Book directly suited to his wants in the school-room.

This double object is rendered practicable on the theory that an institute for the improvement of teachers should be organized and conducted, not only as a school but so far as circumstances will allow, as a model school. It must be conceded that, in a general sense, nearly everything that is essential to a well-conducted and efficient school is equally essential to a well-conducted and efficient institute; and that young teachers should themselves be subjected to a *régime* similar to that which they would impose upon their own pupils. Loose organization and a slipshod management will yield adequate results in neither case.

2. The Institute and the School.—The office of the institute and of the school, is to teach, and to a great extent, both should teach the same subjects in the same way. So far as the institute has special objects of its own, it must of course diverge from the work of an ordinary school. The divergence, however, must relate to a portion of the subject-matter, rather than to the method of instruction. It must relate to that which is more strictly professional. But one of the best methods of teaching how to teach, is by example. Hence, the branches required to be taught in the common schools, must also be taught more or less in the institutes, and a Hand-Book for the institute instructor will be equally serviceable to the common-school teacher.

3. Teachers should be well-informed upon all subjects.—No profession has greater claims upon its members, for a high order of intelligence, than that of the teacher. "The days of a driveling instruction are departing." Ignorance, at the head either of a school or a school system, presents the preposterous paradox of the blind attempting to lead the blind. The time has arrived when education, and not the absence of it, must guide our educational forces. The teacher must not only be a scholar, but he must possess a rich fund of general intelligence. He cannot afford to be narrow-minded or short-sighted. He must be especially well versed in everything that pertains to his profession. Whether he ever attends an institute or not, he should know what it is. He should study the history, the objects, the methods of organization and management of an agency so potent as this in the promotion of his professional interests. If the profession is ever to be respected, it must make itself respectable. To be respectable, it must rise above mediocrity. To rise above

mediocrity, it must ascend the "hill of science;" it must enter and occupy the temple of learning; it must know its rights; it must faithfully recognize, and honestly discharge, its high and solemn duties.

4. A supply of educated teachers indispensable.—Upon the teachers of the nation, more than upon any and all other classes combined, devolves the solution of the problem of a wise and generous education for the entire people. We may build grand school edifices on every quarter-section of our territory, we may hoard up huge school funds in every State, we may endow magnificent institutions with all the wealth of "Ormus and of Ind," and yet, without a full and constant supply of well-educated, skillful, and devoted teachers, our efforts for universal education will be in vain. School buildings, school funds, and endowments are but inert machinery. The *power* resides in the faithful teacher alone. He must breathe into these instruments, as into a perfected organism, the animating breath of life. The maxim "as is the teacher, so is the school," may be accepted as an educational axiom. The value of a school or of a system of schools depends entirely upon its *quality*. Vicious methods of teaching are as certain to produce bad citizens as the absence of all teaching. Hence, the great question is, What shall be the character and qualifications of our teachers, and how many of the right sort is it possible to produce?

5. The Teacher's influence.—The influence of the teacher should be no less potent *outside* of the school-room than within that sacred sanctuary. He should be able to inform and guide public sentiment in all that relates to education. He should be the high priest of his profession, thoroughly informed in its history, nature, means, and ends. There is no question connected with

its principles, its methods, or its polity, which should not be as familiar to him as "household words." Since education is his business, he should comprehend it in all its bearings and relations better than any other persons comprehend it. His interests and his duty alike demand this thorough acquaintance with his specialty. The interests of society demand it; and until the schoolmaster thus becomes *master of the whole situation*, he can neither receive the consideration due to his profession, nor can the world experience the great benefits from his labors that it so sadly needs. In no one thing is the influence that springs from eminent attainments and high character on the part of teachers more necessary than in shaping the course of educational legislation. The great cause is constantly embarrassed and retarded by unwise and inadequate legal enactments. The representatives of the people, as well as the people themselves, are mainly absorbed in the consideration of questions more immediately affecting their material interests. As a general thing, they have neither the information nor the disposition requisite to wise and progressive legislation upon a subject so foreign to their usual course of thought, and demanding the most profound and careful study. Like other great interests, therefore, education needs leaders worthy to represent it, and competent to command the support essential to the success of its measures. To whom should it be able to look for such leadership, if not to those who are especially set apart to promote and defend it? *To the teachers of this country, the great duty belongs.* Will they rise with the emergency and prove themselves equal to its demands?

CHAPTER II.

EDUCATION AND STATESMANSHIP.—DISCUSSION OF
GENERAL PRINCIPLES.

6. Dangers of the Nation.—Intelligence and virtue are the foundation and the corner stone of the American Republic. Hence, it follows that ignorance and wrong are its most formidable foes. Its theory is that every citizen must be intelligent enough clearly to comprehend, and virtuous enough faithfully to discharge his duties. Accordingly, as far as any citizen or any number of citizens may fall short of this standard of qualifications, so far the practice of the republic contradicts its theory, and so far it must suffer the innumerable and costly evils flowing from the operation of forces utterly and irreconcilably hostile to its interests, its prosperity, its perpetuity. While "thinking bayonets," may be important in great emergencies, *thinking ballots are immeasurably more important in ALL emergencies.* If the republic should perish, the calamity would arise from internal weakness rather than from external violence. Ignorance generates poverty, pauperism, and crime among the masses, while demagogues, corruptionists, and traitors feed and fatten upon its ignoble spoils. An intelligent, virtuous, and vigilant people can neither be deceived, corrupted, nor betrayed. But illiteracy is an insidious disease, preying upon the vitals of the body politic; and unchecked, it can lead only to a fatal termination.

In the light of our fundamental theory, let us see how

the account of the great Republic now stands in this regard.

By the census of 1870, the total population of the United States and its territories, exclusive of children under ten years of age, and omitting Chinese and Indians, was 29,686,864. With the same exclusions and omissions, the number of illiterates, or persons unable to read and write, was 5,643,534. The meaning of these figures is that nearly one-fifth of the population of this country, above the age of ten years, is illiterate. But since the ability to read and write indifferently does not constitute intelligence, since in the absence of the restraining virtues those slender attainments are turned to bad account, and since, in short, there are many grades of ignorance above the "reading and writing stage," the number of illiterates as given above must be largely increased, to represent the actual state of the case. It is to be remarked further, that as a rule, the child that reaches the age of ten years an illiterate, must remain so, since the great majority of the children in our public schools leave them at that age. If they have never been admitted prior to that period, they are not likely to be, subsequent to it. The indications seem to be, moreover, that so far are we from making any headway against this fearful array of ignorance, it is actually on the increase. Certain it is, that with all our boasted educational activity, we are able to do no more than to hold it in check. With the most favorable interpretation that we can give to these facts, the aspect is appalling and well calculated to excite in the thoughtful mind the most lively apprehensions.

Who can reflect without alarm upon the loss of mental and moral power, the waste of material resources, and the general deterioration of society, growing out of

the presence of so much ignorance in the very heart of the republic? In view of its existence with all that the fact implies, how easy to account for the poverty, pauperism, crime, corruption, and other disorders that afflict the nation.

And what shall be said of the statesmanship that either ignores the stern facts of the situation or contents itself with the most inadequate measures of relief and protection? Contrast the policy of the United States, a republic, with that of United Germany, a monarchy, in respect to the education of the whole people, and you have a grand truth in a nut-shell: *The real strength and glory of a nation are to be sought and found in its universally educated citizens.* Not that we want the power of education to consolidate despotism, but we do want it to conserve and promote the highest welfare and happiness of a free people. As we want no criminals, we must have no idlers. As we would have no idlers, we must tolerate no illiterates. A true statesmanship looks to causes and not alone to palliatives. The surest method of repressing the bad tendencies of human nature is to develop the good ones. "An ounce of prevention is worth a pound of cure." When will American statesmanship recognize these palpable truths? Says Aristotle, "That the education of youth ought to form the principal part of the legislator's attention cannot be a doubt, since education first moulds and afterwards sustains the various modes of government. The better and more perfect the systems of education, the better and more perfect the plan of government it is intended to introduce and uphold."

7. The Needs of the Nation.—It is legitimate to infer from what has already been stated, that what the nation needs more than all things else is universal

education. It needs this in fact as well as in form, in practice as well as in theory. It needs not only that stark ignorance should be totally exterminated, but that *every child, of whatever sex, condition, or nationality, should be thoroughly taught and trained.* It needs that its "popular sovereigns," one and all, should be made intelligent enough to comprehend their rights, and virtuous enough to discharge their duties. It needs that every person who casts a ballot should be made competent so to wield his own reason, judgment, and conscience as to cast it intelligently, honestly, fearlessly. It needs that the masses of the people, "the great conservative element," should free themselves from leading strings; that they should be able wisely to discriminate between sense and sound, truth and error, wisdom and folly in the conduct of public affairs as well as of their own affairs. It needs above all, that the ultimate *source* of its power should be pure enough, wise enough, and courageous enough rightly to select and rigorously to scrutinize the *instruments* of its power—its public officers of every name and grade. When the people, and the whole people, are made capable of discerning and choosing between the patriot and the partisan, the statesman and the demagogue, then indeed will the nation be redeemed, regenerated, and disenthralled, and the great republic will be invincible in the might of its intelligence and in the rectitude of its intentions.

There may be many who will pronounce such results impossible of attainment, and who will assert that the great mass of the people cannot thus be elevated to this high plane of intellectual and moral discernment. Such persons claim that what we need is a highly educated class to lead the masses, and guide the affairs of state to wise and just conclusions. But such reasoning is sub-

versive of the doctrine upon which the republic is based, and, followed to its legitimate results, would lead inevitably to the alternative that "a government of the people, for the people, and by the people must perish forever from the earth." Nevertheless, it cannot have escaped the memories of such, that in our greatest emergencies, the men for the occasion have been the men *of* the people and *from* the people. Many of the most illustrious characters in our history have been those who have sprung from the bosom of the masses, and who, until the occasion called them forth, were to "fortune and to fame unknown." Nor should the fact be ignored that whatever may be the issue, whether it is to be decided by the ballot or the bullet, the people, either as citizens or as citizen soldiers, are the ultimate arbiters of the national destiny. Is it then of little importance that they be made capable of clearly discerning the merits of public questions and of acting in accordance with well-defined and just convictions of public duty? This reasoning, it is needless to add, has not for its object the disparagement of a liberally educated class. On the contrary, we can never be in danger from a surplus of such. It is not that we need highly cultured classes less, but well-taught and thoroughly trained masses more. No intelligent person needs to be reminded that the precise difference between civilization with its manifold blessings, and barbarism with its manifold curses, is that which a wise and generous culture creates. Wealth is not so much the product of muscle and machinery as of mind. It is the result of labor generated and guided by intelligence. Where there is no intelligence, there is no wealth-producing labor. Hence, *wealth is a child of the cultivated human brain.* And so, too, the arts that adorn, the philosophies that

dignify, the humanities that ennoble, and the institutions that bless a civilized society, all await the advent of that high order of intelligence which a wise and generous education alone can create. In a word, culture is the wealth-producing, comfort-promoting, refinement-inducing power of the world. Abandon it, and civilization must speedily relapse into barbarism, wealth into poverty, and refinement into brutality and degradation. Increase its quantity and improve its quality among the masses, and you as certainly multiply the sources of wealth, and advance the degree of civilization and refinement as causes are sure to produce their legitimate effects. This, briefly, is the nation's greatest want. It needs vastly to increase the source of its power and utterly to exterminate the cause of its weakness.

CHAPTER III.

DISCUSSION OF GENERAL PRINCIPLES (CONTINUED).

8. The kind of Culture needed.—The mere ability to read and write is not education. It may not be even the beginning of true culture. Whether it is or is not, depends upon the *quality* of the teaching and consequently upon the *quality* of the result. When words are habitually read or written in ignorance of their import and use, they are instruments of weakness rather than of power. They are dead weights upon the memory rather than lamps to the reason and lights to the understanding. The education of many a child has been forever spoiled by bad methods in the beginning.

The mechanical use of language not only evolves no power but actually stifles development and unfits the mind for rational culture. "Ideas before words, things before books," is the first principle of primary instruction. The thought once developed, the desire for its expression creates a longing and a necessity for language. In a natural method of teaching, the appetite for language is as irresistible as the appetite for ideas or the craving for food. If the teacher be master of his business, *he will take the words of his pupils as the measure of their thought and the test of its accuracy at every step.* Their language thus become the index of their intellectual states and affords to the teacher the certain data for correcting all errors and supplying all deficiencies in the working of the mental mechanism.

A neglect carefully to cultivate the perceptive powers during the golden opportunity of early childhood, renders accurate observation impossible, beclouds the mind with half-formed, distorted conceptions, weakens the judgment, paralyzes the reason, corrupts the imagination, and saps the very foundation of a virtuous and useful life. The impressions received and the habits acquired during the first ten years of human existence are more decisive either for good or evil, success or failure, happiness or misery, than all the influences of the after period. And yet these fearful truths seem scarcely to have dawned upon the consciousness of mankind. In this connection the following impressive words of one of our most esteemed American savans,* will be read with interest :

"The future character of a child, and that of the man also, is in most cases formed probably before the age of seven years. Previously to this time, impressions

* Professor Joseph Henry.

have been made which shall survive amid all the vicissitudes of life—amid all the influences to which the individual may be subjected, and which will outcrop as it were in the last stage of his earthly existence, when the additions to his character made in later years have been entirely swept away. I may mention one idea which has occurred to me, and which I have never seen advanced ; but which, if true, invests the subject of early impressions with a fearful interest. The science of statistics shows that certain crimes which are common in seasons of youth disappear comparatively with advancing age, and re-appear again toward the close of life ; or, in other words, that the tendencies to indulgencies in disorders of the imagination, and habits which were acquired in the early life of a vicious youth, or one exposed to evil associations, though they may be masked and kept in subjection by the judgment and the influences of position and reputation during early manhood, middle life, and first decline, resume their sway and close the career of the man who has perhaps for years sustained a spotless reputation, with ignominy and shame.”

It may be safely asserted that multitudes of children leave our common schools for the scenes of active life every year with their perceptive and observing powers thus undeveloped, their intellectual appetencies dormant, their sensibilities untouched by ennobling influences, their habits misshapen, and the very foundations of their success and happiness in the career of existence unsettled if not utterly destroyed. This is especially true in many of the rural districts, where the schools are small, improperly classified, and meagrely supplied with the material aids to instruction ; where the teachers are young, inexperienced, untrained, poorly paid and inade-

quately supported by an active and healthful public sentiment. The schools for our rural population present the knottiest problem connected with the entire work of universal education, and they demand vastly more attention than they have yet received from the statesman, the educator, and the people. Deprived, as the inhabitants of the country districts are to a great extent, of the immediate influence of a high-toned daily press, popular lectures, libraries, museums, and other means of instruction accorded to the residents of cities, it becomes even more important that *their schools should be thoroughly taught and wisely managed*. They are the principal sources of the intellectual and moral life of the community. They have to do with the child during the most critical because the most susceptible period of his existence, and when, if ever, he needs the guiding hand of a far-reaching intelligence and a matchless skill to secure him from the disasters of false steps and perverted faculties in the beginning. Without exaggeration, this is the most supremely important question with which the statesman and the educator have to deal. "The child is father of the man." What the man is to be, the child, in all the elements of character, must first become. What the child is to become, must be determined by the *quality of the teaching and the training he is to receive*. There is no accident, no chance connected with the question. It is a question of cause and effect. It is a question between a far-sighted, whole-souled, comprehensive system of *thorough education and its opposite*. The statesmanship which cannot discern the relations between the illiteracy, the bad teaching, the malforming methods and influences of poor schools on the one hand, and the failures, the social inharmonies, the crimes and other disorders of society on the other, is scarcely equal to the needs of a free people.

The bearing of a thorough and comprehensive system of teaching upon so much of the labor question as pertains to the cultivation of the soil, deserves the most careful consideration also. Wealth-producing industry is simply another name for *labor inspired and controlled by the intellectual and moral power that lies behind it*. Vacant minds and exhausted soils, dilapidated machinery and careless, slothful habits, are almost correlative terms. But minds untrained to think, faculties unaccustomed to feel and yield obedience to the power of truth, or to look beyond the demands of the present hour, can possess neither the energy, the skill, nor the *disposition* to conserve or increase the capacity of the earth for bringing forth its kindly fruits. Science has demonstrated, the press has reiterated, and the voice of history echoing through the ages has confirmed the truth that *constant cropping, in the absence of appropriate restorative measures, devitalizes the soil and ultimately impoverishes both its owners and the community at large*. Vast fertile areas, the former granaries of great empires, have, in this manner, been smitten with physical decrepitude. "Whole provinces, once celebrated for the wealth and social advancement of their inhabitants, have either been deserted by civilized man and surrendered to hopeless desolation, or greatly reduced in both productiveness and population,"* and still, even in our own favored land, the work of depletion goes steadily on. If we seek for an explanation of these and many other unwelcome facts, we shall find it, mainly, in the total inadequacy of our present means and methods of education to the work of *raising up the whole people to a proper appreciation of their true interests and a comprehensive knowledge of their rights*

* George P. Marsh, in "Man and Nature."

and duties as individuals and as citizens. "Good common schools," said Edward Everett, when Governor of Massachusetts, "are the basis of every wise system of education." But to a vast majority of the American people they are not only the basis, but the superstructure and the apex of the only system within their grasp. More than nineteen-twentieths of our children derive their sole educational advantages in the common schools, and these privileges, such as they may be, are limited principally to the school period below the age of ten or twelve years. This is especially true of our rural population, who compose the great mass of the people. When to these facts it is added that the country schools do not perhaps continue in session on an average of more than six months in a year, and that multitudes of the children fail to reap such slender advantages as may be afforded, for more than three or four months annually, we shall have some of the more prominent elements of the difficult problem clearly before us.

What then do we need? What ought to be done? What *can* be done? These are questions of vast import. They demand the most thoughtful consideration. They ought to be ever present to the minds of our statesmen and educators; for they will always be in order, and will constantly demand a satisfactory answer. The kind of culture required for the masses of the people has already been indicated in the discussion of that which we now give to too many of them. They need, in the few years allotted to their early education, the blessings of a thorough system of culture conforming to nature. The perceptive and observing powers should be developed by a rational application of appropriate means, instead of being stifled by false, mechanical methods. The imagination should be filled with pure

and beautiful images. The attention, the memory, and the power of association should be distinctly recognized and assiduously cultivated in all the exercises of the school. The wayward tendencies of childhood should be held in check by the restraints of a wholesome and efficient discipline. Habits of order, neatness, promptitude, obedience, industry, and self-respect should be inculcated and enforced at every step, until they become a part of the daily life of the future citizen. Reason, judgment and conscience should be made to assert their sway over the instincts and the passions, guiding and controlling every outward act and inward emotion. In a word, *the discipline of the school should prepare the child, so far as human agency can do it, for the discipline of life.* It should inspire him with the love of knowledge, giving him the power to acquire and the disposition to use it in the intelligent and faithful discharge of every duty incumbent upon him as an individual and as a member of society.

"I call a complete and generous education that which fits a man to perform justly, skillfully, and magnanimously all the offices, both public and private, of peace and war. . . . inflamed with a study of learning and the admiration of virtue, stirred up with high hopes of living to be brave men, and worthy patriots, dear to God and famous to all ages." *

* John Milton.

CHAPTER IV.

DISCUSSION OF GENERAL PRINCIPLES (CONTINUED).

9. The duty of the Nation. It is manifestly the duty of the nation to plant the common school in every neighborhood, and within reach of every citizen whom its soil maintains. The possession of rational faculties implies an inalienable right to the means for their cultivation. Since educated mind is the *source* of all our wealth, education is clearly entitled to so much of our material resources as may be necessary for the extension of its blessings to all who are entitled to receive them. Since the inalienable right to life, liberty, and the pursuit of happiness is best secured by *educating the whole people*, since the safety of life and property is the best assured where there is culture, refinement, industry, and *respect for law*, it is no less the interest than the duty of the nation *thoroughly to educate itself*. The common school, with its associated institutions and agencies, is the ordained instrument through which this universal education of the people alone is possible. To encourage, perfect, and extend it until it reaches every home and performs its functions wisely and fully, is the great problem of all others that should engage the attention, and command the warmest sympathies and the best efforts of American statesmanship. To neglect this duty is to disregard the first instinct of national self-preservation and progress.

No greater mistake can be committed than the adoption of measures characterized by false notions of

economy in this direction. The great question is not, How little can we get along with, and exist? but, How much can we judiciously and wisely expend in the education of the people? No investments are so certain to yield an adequate return as those which are carefully made for the increase of intellectual and moral power; for the rescue of the young from ignorance, degradation, and crime. With all the faults that we so justly attribute to our systems of education in this country, it must be confessed that we get about all we are entitled to, because all we pay for. The way to obtain adequate results is to make *adequate investments* for education. We venture the bold suggestion that when we judiciously expend ten times the amount now annually expended for school purposes, we shall be better satisfied than we now are both with the returns and the investments. The statesmanship which measures the value of an educational institution or system by the paucity of its expenditures rather than by the quality and quantity of the fruits which it brings forth, is totally incompetent to shape the destinies of a great nation. The question should be, How much can be profitably applied to the extinction of ignorance and the exaltation of intelligence and virtue? When this policy prevails, we shall have little occasion to deplore the inadequacy of our means or the poverty of our results in national education. This is no plea for extravagance or unnecessary expenditures. No investment can be extravagant which is necessary. But so long as education is the creator of wealth, it is necessary that wealth should be liberally and wisely employed to advance education and extinguish ignorance, the source of poverty. So long as civilization is the product of culture, civilization must pay the price necessary to render culture universal

through the extension and perfection of our system of education. There can be no surer sign of national degeneration and decay than a policy of retrenchment here. The words of William Penn are full of truth and wisdom. "That which makes a good constitution must keep it, namely, men of wisdom and virtue; qualities that, because they descend not with worldly inheritance, must be carefully propagated by a virtuous education of youth, for which *spare no cost; for by such parsimony all that is saved is lost.*"

But what is implied by the word nation as used in this connection? Not the general government alone; not the state and municipal governments merely, but both the governments and the people: the collective intelligence and power of the people as represented in and by the governments.

Says Horace Mann:

"In our country and in our times, no man is worthy the honored name of a statesman who does not include the highest practicable education of the people in all his plans of administration.

"He may have eloquence, he may have a knowledge of all history, diplomacy, jurisprudence, and by these he may claim in other countries the elevated rank of a statesman; but unless he speaks, plans, labors at all times and in all places for *the culture and edification of the whole people*, he is not, he cannot be an American statesman."

And again, one of our highest authorities in economic science, John Stuart Mill, justifies beyond dispute the interference of government in the promotion of education.*

* Mr. Mill remarks that "The uncultivated cannot be judges of cultivation. Those who need most to be made wiser and better, usually desire it least, and if they desired it, would be incapar-

Our national government, then, should not only recognize its obligation to preserve the foundation upon which it rests, but it should exert itself actively and vigorously to extend the blessings of a wise and generous education to the whole people. No specious pretexts of a want of power should interfere with this plain

ble of finding their way to it by their own lights. It will continually happen on the voluntary system, that, the end not being desired, the means will not be provided at all, or that the persons requiring improvement having an imperfect or altogether erroneous conception of what they want, the supply called forth by the demand of the market will be anything but what is really required. Now any well-intentioned and tolerably civilized government may think without presumption, that it does or ought to possess a degree of cultivation above the average of the community which it rules, and that it should therefore be capable of offering better education and better instruction to the people than the greater number of them would spontaneously select.

"Education, therefore, is one of those things which it is admissible in principle that the government should provide for the people. The case is one to which the reasons of the non-interference principle do not necessarily or universally extend.

"With regard to elementary education, the exception to ordinary rules may, I conceive, be carried still further. There are certain primary elements and means of knowledge which it is in the highest degree desirable that all human beings born into the community *should acquire during childhood*. If their parents, or those on whom they depend, have the power of obtaining for them this instruction and fail to do it, they commit a double breach of duty: toward the children themselves, and toward the members of the community generally, who are all liable to suffer seriously from the consequences of ignorance and want of education in their fellow-citizens. It is therefore an allowable exercise of government to impose on parents the legal obligation of giving elementary instruction to children. This however cannot fairly be done without taking measure to insure that such instruction shall always be accessible to them either gratuitously or at a trifling expense."

duty. A government without the power to save and strengthen itself by the surest, cheapest, and best methods, is a delusion and a snare. A government without the authority to elevate and promote the happiness of the people whose servant it is, by the use of the most certain and effective means, has no object worthy of its existence, and should speedily give way to a worthier and better.

When in 1867 our government established a Department of Education, it took a step in the right direction. Had it supplemented this action by wise measures for enlarging the scope of its powers and duties, until they became coequal with those of the other departments, it would have afforded additional proof of its advancing statesmanship, and commended itself to the confidence and approval of all right-minded citizens, if not to shortsighted and selfish politicians. But when in 1869, it reduced this Department to a Bureau, and consigned it to the comparative seclusion of another department already surcharged with the burden of duty, it performed, an act unworthy of its dignity and discreditable to its intelligence. It should hasten to correct the mistake, and spare no effort of statesmanship, until it recognizes the interests of education as at least equal to those of its foreign relations, its finances, its postal service, and its enginery for the destruction of human life as represented by its army and navy. Nothing could have a stronger tendency to nationalize education and give it that prominence in the minds of the great mass of the people, than this full recognition of its claims by that which represents the interests and the power of the nation. If despotism needs a ministry of public instruction to secure the universal education of the people, much more does freedom require it to aid in preserving

and perfecting its beneficent institutions. The power to elevate and bless the people should neither be feared, nor should it be restricted to State lines. It will require all the available power of the nation, the State, and the municipality, successfully to grapple with the combined evils resulting from ignorance and bad teaching which press so sorely upon us. There are appropriate avenues in which not only may each legitimately exercise its own proper influence, without hindrance or harm to the others, but, by mutual coöperation all may labor with immeasurable advantage to the people. If there be any such thing as distinctively "American ideas" the common school is certainly one of them, and the most important one, and if the propagation of these ideas be a part of our mission, surely we should be in a position to discharge this function of our "Manifest Destiny."

CHAPTER V.

DISCUSSION OF GENERAL PRINCIPLES (CONCLUDED).

10. The Teacher the leading Factor in the work of reform.—It remains to be stated that in all measures for the extension of education to destitute localities, or for the improvement of its quality wherever it may be needed, the Teacher and his improvement must be the central thought. For, wherever any portion of the race is to be raised from the degradation of ignorance it must be done through the *power of wise teaching during the period of childhood and youth*. Hence, we must provide teachers adequate in numbers, in learning, in

capacity, and in skill, to the magnitude of the work to be performed. We must bear in mind that if "the uncultivated cannot be the *judges* of cultivation," they cannot surely be *leaders* of it. They cannot bring intelligence out of ignorance. Teachers of high intellectual, moral, and professional attainments, only, are equal to the emergency. Properly to conduct and control the humblest school, demands more wisdom than to rule a state. It is manifest therefore, that to build school-houses, supply books and apparatus, and provide funds, alone, will not accomplish what is needed. *Every school must be blessed with the presence and inspiration of a teacher worthy of the high vocation of instructing the people.* To stop short of this, is to neglect the one condition of all others the most necessary to the successful solution of the problem. This is the testimony of the best thinkers and ablest writers upon education in all parts of the world. It is the testimony of experience everywhere.

Said that profound statesman, M. Guizot, after portraying the character of a true teacher :

"To rear masters approaching to such a model, is a difficult task, and yet we must succeed in it, or else we have done NOTHING for elementary instruction."

The popular estimate of the requisite qualifications of teachers is best attested by the starvation prices which in multitudes of cases are paid for their services. But their attainments and capabilities are too often as meagre as their compensation. The most attenuated acquisitions and the utter absence either of special training or experience, seems to form no bar to their employment by the people, simply because they are cheap ! The consequence is, that the schools of the rural districts especially are to a great extent in the hands of young

masters and misses who are just in their "teens" and who have no clear conception of the nature of education, or of the means and appliances whereby the most important work of the most critical period in human existence is to be worthily performed. Slaves to the text-book, entangled in the harness of dull routine, strangers to the power and the pleasures of true knowledge, unskilled to teach, uninspired with a love for their special work, they can scarcely be trusted to guide the footsteps of confiding childhood into the ways of pleasantness and the paths of peace. Looking a little farther on, we shall discover that this vast army of professional incompetency and inexperience actually disbands on an average of about once in each four or five years, and is succeeded by another multitude of undisciplined recruits who can only repeat the mistakes of their immediate predecessors and teachers. And thus error, inexperience and incompetency, are reproduced and propagated from year to year, and from decade to decade. While there is progress in the cities, there seems to be comparative fixedness, if not actual retrogression in the quality of the teaching in many of the rural districts. In the higher walks of education too, the best minds are being constantly allured from the service through the superior inducements offered by the other professions, callings, and industries of life, where talent readily commands an adequate reward, and where it is freed from the officious dictation and the narrow-minded intermeddling of mediocrity clothed in the habiliments of "a little brief authority."

The flippant use of the words "pedagogue," "school-master," and the like, as terms of reproach even among many of the more cultivated classes, indicates a lamentable lack of appreciation of the real dignity and importance of the office of a teacher, by those who should ever

regard it with reverence and respect. Were the anxiety that each child of the republic should be properly educated, as great and as general as that each man should vote and pay his share of the taxes, there would be no want of this true appreciation or of the means to extend and improve education to the utmost limit of the public necessity.

It is not asserted, let it be understood, in this connection, that these deplorable facts are universal. But certain and undeniable it is, that they are by far too common. We have too many poor schools, poor teachers, incompetent school officers, and indifferent citizens. It is indeed safe to affirm that we have a vast majority of such, and that the *decadence of education, even in some of the older States*, is a truth attested by official figures. When superadded to such a state of facts it is discovered that, over extensive areas of thickly inhabited territory, there are absolutely no means of instruction for the masses, either good, bad, or indifferent, the aspect becomes startling, and it should arouse the intelligence and patriotism of the nation to a consideration of its dangers and its duties.

11. The special preparation of teachers an urgent necessity.—It is preposterous to suppose that a great people can be created or sustained through the agency of poor schools, and an inadequate, faulty education. Only good schools, conducted by able teachers, can train up the successive generations of children to be worthy citizens, the strength and glory of a free commonwealth. *All experience shows that we cannot obtain a supply of competent teachers unless we create special agencies for their preparation.* If, therefore, we are to have State schools for the education of the children, it is equally important that we should provide State

schools for the preparation of their teachers. The money expended to pay incompetent instructors is as surely wasted as if used to pay unskilled mechanics who know just enough to waste their material and spoil their work. To build and furnish school-houses, and pay persons as teachers who are unfitted for their duties, is a species of prodigality that would be submitted to in none of the material concerns of life.

The question as to what shall be taught in our common schools is yet to receive a definite solution. Next in importance to right methods of teaching, ranks the subject-matter of teaching. "What knowledge is of most worth? What branches are the most useful, first, for discipline, and second, for use or particular application?" Upon this subject we have no settled policy. As a consequence, many things inferior usurp the place of those of superior worth. The dry details of so-called geography, the abstract definitions, rules, and formulas of grammar, the comparatively valueless signs and symbols of algebraic notation, consume a vast amount of the time that should be devoted to the study of the earth, its climate and productions in their relations to man, and the course of human history; of the English language as a means of communication, and of the living sciences which lie at the basis of all the arts and industries of life. But it is futile to attempt a revolution in subject-matter while teachers, their attainments, and methods of work, are so inadequate to the public needs. It is idle to talk of the necessity of the elements of Physics and Chemistry, Botany and Physiology, Natural History and Agriculture, so long as we have neither the knowledge nor the skill requisite to their proper treatment. Of what value would these sciences be to the people when mechanically memorized from the printed page, as are most of the subjects now

in our common school curriculum? To be of use either for discipline or application, they must be properly taught by observation, experiment, and demonstration. In short, their objects must be seen, handled, analyzed, compared, and classified. These practical sciences must be investigated by methods and processes analogous to those by which they have been themselves developed, and thus far perfected. Can our children be expected to grope their way to these natural processes in spite of their teachers? or, must the latter first be made capable of leading the way, inspiring the young by the fulness of their learning and the skill of their methods? Until our children and youth learn the right use of their own powers, it is in vain to expect that they can master the powers of nature or accomplish any other important result. The "new education," therefore, so far as it refers to our elementary schools, must begin its work by revolutionizing the teacher and his methods in order that the way may be opened for effective instruction in the sciences related to the arts of life. This question of learning, skill, and personal power in the teacher is really "that before which all others pale," and when it is fully settled, the "knowledge which is of most worth" will find its way into the schools and the minds of the people as easily and naturally as the sunlight finds its way into every nook of the broad landscape.

12. Normal Schools.—Wherever, therefore, common schools are planted, Teachers' Seminaries must be established, liberally supported, and efficiently conducted. Not only an intelligent forethought, but a true economy demands that this should be done. Viewed from a just stand-point, they constitute the foundation of an efficient system of common schools, because it is "the master that makes the school," and it is the careful,

special training that makes the master. A very small percentage of the amount expended upon a system of common schools, will support a system of Training schools, and thus secure to the people an adequate return for the investments made in behalf of their children. The organization of such institutions should be broad in its scope, and far-reaching in its aims. They should strive to establish a high standard of scholarship and professional attainments, to the end that they may send forth men and women fitted to become leaders in the great work of educational reform. The best talent in the community should be encouraged to seek the advantages they afford, in order that it may be drawn into the service of public instruction. Special inducements should be held out to young persons of character and ability to enter upon a course of preparation here. When necessary, pecuniary aid should be extended to those who need and deserve it. The State should recognize the eminent fitness of those who graduate from these courses, by constituting their diplomas perpetual certificates of qualification, and it should do all that an enlightened commonwealth can do, to elevate the profession to the highest rank in the public esteem. By such a policy, it is perpetually elevating its own rank, renewing its intellectual and moral energies, and increasing its influence and power in every direction.

The vital relations which Normal schools and Teachers' Institutes sustain to the Common school system, will be considered in the closing chapter of this volume, and we conclude the present discussion with a brief reference to the particular agency which it is a prominent object of the Hand Book to improve.

13. Teachers' Institutes.—In the present condition of education, the great mass of teachers who

most need instruction cannot be reached by the Normal schools. Until these permanent institutions shall become more generally established, graded, and localized, than now, their direct advantages will be enjoyed by only a small proportion of the teachers, although, indirectly, their influence will be felt more or less everywhere. But by means of the Teachers' Institute, a temporary and "peripatetic" agency, capable of universal application, much may be done for the diffusion of professional knowledge among the thousands of inexperienced persons who from year to year are employed in the common schools. A brief sketch of the rise and progress of institutes is given in a subsequent part of this work. Wherever they have been established and efficiently conducted, they have done much to improve the qualifications of teachers, and to awaken in the community a deeper sense of the importance of education. That which is now most needed *is their general adoption, a more thorough and effective organization of their work, and a better supply of instructors capable of bringing out of them the highest practical results.* Like the common schools, they fail in many cases from the lack of wise leaders and able teachers who can make the most of the brief opportunities afforded for thorough instruction. But the influence of rightly conducted Normal schools, aided by a high-toned educational literature, will gradually supply these deficiencies, and the Institute will become one of the most powerful instrumentalities in the elevation of the teacher and the advancement of popular education. As it is purely an "American idea," an outgrowth of the necessities of the American common school, it is becoming that as a people, we should afford it an opportunity for the most ample development, until the needs of our system for qualified instructors shall be fully supplied.

SUMMARY TO PART FIRST.

CHAPTER I.

(1) Objects stated, to aid the teacher; (2) The Institute and the School, the office of both to teach; (3) Teachers should be well informed upon all subjects; a few reasons given; (4) A supply of educated teachers indispensable; school funds and school-houses cannot accomplish all; they are but the instruments; the teacher the power; (5) The teacher's influence should be potent without, as well as within the school-room; he should be a leader in educational reform.

CHAPTER II.

RELATIONS OF EDUCATION AND STATESMANSHIP CONSIDERED,
AND GENERAL PRINCIPLES DISCUSSED.

(6) Dangers of the nation; intelligence and virtue the cornerstone of the Republic; ignorance and wrong its most formidable enemies; its dangers from internal weakness rather than from external violence; lessons from the census; deficiencies in our Statesmanship; (7) The needs of the nation; universal education of a high order; illiteracy should be exterminated and every child should be taught and trained; masses of the people should be able to judge wisely of public, as of private affairs; well educated masses as well as highly educated classes necessary.

CHAPTER III.

DISCUSSION OF GENERAL PRINCIPLES CONTINUED.

(8) Kind of culture needed; ability to read and write not education; the value of education dependent upon its quality, mechanical use of language stifles intellectual development; teaching should conform to nature; importance of early impressions; remarks of Prof. Henry; defects of country schools and teachers; influence of education upon the labor question; vacant minds, and exhausted soils correlative terms; remarks of Geo. P. Marsh and

Edward Everett ; thorough teaching and careful discipline necessary ; Milton's definition of education.

CHAPTER IV.

DISCUSSION OF GENERAL PRINCIPLES—CONTINUED.

(9) Duty of the nation, it should plant the common school in every neighborhood ; the possession of rational faculties implies an inalienable right to the means for their cultivation ; educated mind the source of all wealth ; the right to life, liberty, and the pursuit of happiness best secured by educating the whole people ; fatal mistake of false notions of economy ; faulty statesmanship again ; ideas of William Penn and Horace Mann, remarks of John Stuart Mill ; a national department of education necessary ; propagation of " American ideas."

CHAPTER V.

DISCUSSION OF GENERAL PRINCIPLES—CONCLUDED.

(10) The teacher the leading factor in the work of reform ; the race to be raised from ignorance by the power of teaching ; remarks of M. Guizot ; low popular estimate of a teacher's qualifications ; meagre attainments and poor compensation the result ; qualifications of district school teachers ; decadence of education in some States ; (11) Special preparation of teachers an urgent necessity ; poor schools can neither create nor sustain a great nation ; a supply of competent teachers secured only by special agencies for their preparation ; waste of public funds on incompetent instructors ; the demands of the " new education ;" (12) Normal Schools must be generally established, liberally supported, and efficiently conducted ; the true policy of States in this regard ; (13) Teachers' Institutes should be extended and perfected ; must reach the great mass of teachers ; their history referred to, their effective organization emphasized.

PART II.

CHAPTER VI.

OBJECTS OF THE TEACHERS' INSTITUTE.

1. Definition.—A Teachers' Institute is a temporary assemblage of teachers for special drill and mutual improvement in all that relates to their profession. When the sessions are continued for several weeks, these bodies are sometimes denominated Normal Institutes, and in some instances they have been called, with doubtful propriety, Training Schools.

2. A difference to be observed.—An Institute differs from an association or convention both in its objects and in the methods by which those objects are to be realized. An Institute is, or should be, a *school*, and in its organization and management it should correspond with the latter, so far as its special objects and the circumstances under which it assembles will allow.

3. Objects of the Association and Convention.—The Association and the Convention are, more strictly speaking, *voluntary deliberative bodies*, and must therefore be conducted according to the rules of parliamentary law. Their objects are of a more general nature than those of the institute. Their aim is to discuss those principles, and questions of policy which relate to the *organization and administration of the system of Education*.

4. Objects of the Institute.—The objects of

the institute, on the other hand, are more specific and detailed in their character. In many States the Teachers' institute is recognized by law as a factor in the public school system. In some cases it is aided, and in others it is entirely supported by legislative appropriations, and is placed under the supervision and control of school officers. Occasionally, attendance upon its sessions by teachers is made compulsory, and its operations are in various ways regulated by statutory provisions.

5. Its aims more specifically stated.—Its specific aim is the *improvement of the teacher in everything that pertains to the discharge of his professional duties, whether within the school room or outside of it.* It seeks, or should seek, to increase his scholarship by the *presentation and illustration of higher standards of attainment* in the several branches of study. It should especially labor to inspire him with a clearer and more elevated conception of the nature and objects of education, and to acquaint him with those principles and methods of teaching and management which lie at the basis of all real success in his important work.

6. Importance of this distinction.—This distinction between the institute and a deliberative body should be carefully observed, since the former has many times proved to be a disastrous failure, in consequence of having assumed the organization and methods of management, which more properly belong to the latter.

CHAPTER VII.

ORIGIN AND BRIEF HISTORY OF INSTITUTES.

The first convocations of this kind of which we seem to have any reliable record, were held at Hartford, Connecticut, in the years 1839 and 1840. They were organized and conducted under the direction of Hon. Henry Barnard, then Secretary of the State Board of School Commissioners. In the autumn of 1839 a class of twenty six young men, and in the spring of the succeeding year another class of sixteen young women, were brought together, and were enabled without expense to themselves, to review and continue their studies under the recitations and practical lectures of experienced teachers, and to witness, in the public and private schools of the city, other modes of school arrangement, instruction, and management than those to which they had been accustomed. Every member of these classes was subsequently employed in the common schools. It is but just to state here, that these classes were not denominated Teachers' Institutes, although in reality they *were* such. The expenses of the efforts thus made were met by private contributions.

7. In the State of New York.—The first meeting of teachers for special drill, in the State of New York, was held at Ithaca, Tompkins County, in the spring of 1843. The second, assembled at Auburn in the autumn of the same year.* Both of these meetings were held

* The following extract from a letter of Professor James B. Thomson of New York to the author, will be of interest in this connection.

"You are right in your suggestion that I was 'a worker in

under the auspices of the County Superintendents of Schools, for their respective counties. It was at this time that they first received the designation by which they

the first Institute held in this country.' After the autumn of 1848, till 1855, I spent about six weeks every spring, and from ten to twelve weeks every fall, in attending Teachers' Institutes. During this period I attended more or less in nearly every Northern and Western State from Maine to the Mississippi River. But in answer to your inquiry respecting a Report or History of the earlier Institutes, I am sorry to say that I know of no such report or publication. A faithful history of these earlier efforts for the improvement of our public schools would be an invaluable contribution to the great cause of Education". . . . "The honor of their introduction into the Empire State is due to Mr. J. S. Denman, County Superintendent of Tompkins County, New York. He held the first at Ithaca, in the spring of 1843. The second was held at Auburn under the direction of E. G. Storke, Esq., County Superintendent of Cayuga. It commenced about the first of Oct. 1843, and continued its sessions about two weeks. It was my privilege to have the charge of Arithmetic and Algebra on that occasion.

"This Institute drew together more than two hundred teachers, some of whom, to my certain knowledge, walked over twenty miles to enjoy its advantages. It was a decided success. A report of it through the press, was circulated throughout the State, and no doubt did much to give the ball started by Mr. Denman an impulse which soon sent the Institution throughout this and other States.

"The third was held at Ithaca, Tompkins Co., commencing about the close of the one in Auburn. This I also had the pleasure of attending, and cheerfully bear testimony to the earnestness and scholarly enthusiasm of the teachers of both sexes who were in attendance.

"The next year (1844) the number of Institutes in this State was largely increased. I cannot give the exact number, but my impression is in the neighborhood of twenty. They soon found their way into New England, and were very popular. As early as 1846 I think, I attended one in the city of Providence, R. I., under the auspices of Hon. Henry Barnard, who was the Superintendent of Public Instruction in that State. This Institute numbered

have since been known—Teachers' Institutes. The number in attendance at these two pioneer institutes was quite large, there being over two hundred at the latter, some of whom are stated to have walked more than twenty miles in order to enjoy its advantages. In some cases, not less than five hundred teachers have been known to attend a single institute in the Empire State, which claims the credit of having originated this valuable educational agency.

8. The moving cause.—These early efforts to improve the professional character of teachers were a result of the devoted zeal and industry of school officers. The system of county supervision had previously been adopted, and the officers acting under it were passing from school to school, and from town to town, discovering the deplorable defects prevalent in the schools. They were exerting their official influence to quicken the energies of teachers and pupils, and to arouse the people from their apathetic indifference toward the vital interests of education. The visitations thus made, rendered it obvious to the Superintendents that the principal need of the schools was *competent teachers*, and that, until this want could be supplied, all other efforts would be of little avail.

9. Normal Schools then in their infancy.—At the period referred to, no Normal schools had been established in this country, excepting in the State of Massachusetts. The institutes, therefore, seemed to offer for the time being, the only available means for improving the qualifications of the teacher. They were, thus,

between three and four hundred members, and was continued one week. About this time they were introduced into Ohio and other Western States. But you are doubtless more familiar with their history in that region than I am."

clearly *the outgrowth of a partially-awakened and gradually-advancing public sentiment*, and of the necessities of a school system in a state of progress. For some years they were purely voluntary, and were mainly supported by contributions, or by fees levied upon the teachers in attendance.

10. Legal Recognition.—By act of the legislature of New York, passed in 1847, institutes were recognized in the school code of that State, and appropriations were made for their support. By a strange inconsistency, however, *the same day* witnessed the abolition of the office of County Superintendent of Common Schools. Thus, much of the good which might otherwise have been derived from this legal recognition of the institutes was prevented, by striking down the very agency that had nursed them into being. *But their establishment as a factor in the public school system of the State was a substantial victory in the cause of progress.*

11. Institutes in other States.—**Massachusetts.**—The first teachers' institute in Massachusetts, as distinguished from county and district conventions, was held in 1845. At the next session of the legislature, on the recommendation of the Governor, an appropriation of \$2500 was made for the maintainance of institutes, the expense of each not to exceed the sum of \$200. From that time till the present, they have been held by the Secretary of the Board, and supported by annual appropriations, which for many years were \$3,000, with authority to expend \$350 on a single institute. They have been held in the towns that have asked for them, and given those attending them their board. In 1873 the annual appropriation for institutes was increased to \$4,000. One week of five days, beginning on Monday at noon and closing on Friday night, is the time allotted to each.

12. In New Hampshire.—The first institutes were organized here in 1846. They are recognized by the school laws of the State, and liberal appropriations are made for their support. They are in fact, wholly maintained by the State, and are under the direct supervision of the superintendent of Public Instruction, who prescribes the order of exercises and takes an active part in the instruction. Elsewhere, on page 74 will be found two programmes used in different counties in the year 1873. They will repay an attentive examination.

13. In Connecticut.—Institutes were established in Connecticut in 1847. These are now supported wholly by the State. "In 1847 a resolution was passed directing the Superintendent of Common Schools to employ four or more suitable persons to hold schools of teachers for the purpose of instruction in the best modes of governing and teaching common schools, between the 15th of September and 31st of October of that year. In 1848 this provision was slightly changed and made permanent." The Secretary of the State Board of Education, in his report for 1874, thus remarks: "They are now regarded as an essential agency by the most experienced educators of the country, and are organized in every State that maintains a good system of public schools."

In the same connection, the secretary thus quotes from Hon. Henry Barnard: "During nearly a quarter of a century's study and observation of schools, school systems, and agencies, in different States and countries, I have tried, seen, or read of nothing so universally applicable or so efficient in awakening and directing rightly both professional and parental interest in the broad field of popular education, as a *well-attended and wisely-conducted Teachers' Institute*."

After an observation of twenty years in different States of our country, and an extended tour in Europe, Secretary Northrop says: "The plans and methods thus observed in America, with others learned abroad, have contributed to the efficiency of our institutes at home. These observations discover mistakes to be avoided as well as excellences to be copied. The theories and experiments fully tried and failing elsewhere should give warning and wisdom to us." He then quotes and indorses the following sentiments of ex-School Commissioner White of Ohio, a gentleman of much experience in institute work, who gives his "testimony against the foolish idea that the work of an institute should be done by its members. An institute thus conducted is just about as efficient as a school in which the pupils successively act the teacher. An institute should bring to experienced teachers the ripest experience, the best methods, and the soundest views of the profession."

14. In Ohio.—The first Teachers' Institute held in Ohio was conducted at Sandusky, in September, 1845, by Hon. Salem Town of New York, M. F. Cowdery, and Dr, A. D. Lord. Another was held during the same autumn at Chardon. In 1846 nine institutes were held, chiefly in the northern part of the State. They are now recognized under the school laws, although no appropriations are made either by the State or county authorities for their maintenance. They are sustained entirely by the examination fees paid by teachers, supplemented by tuition charges when necessary. The majority of the county institutes in Ohio continue only five days, while a few remain in session two weeks, and fewer still three weeks. The private Normal Institutes generally continue from four to five weeks. These agencies are usually managed by a committee, by whom the programme of exercises for

each session is arranged. The programme varies each day, and the same work is rarely attempted to be done in any two counties. It is not usual, according to the State Commissioner, Hon. T. W. Harvey, *to prepare and print beforehand any detailed programme of the work to be done*. It is the judgment of the commissioner that the institutes are doing a good work, but they *need systematizing*, and he trusts that means will ere long be furnished to the Department of Common Schools, by the judicious use of which these agencies may be made more effective.

15. In Illinois.—The first institutes were held in 1854. While they are recognized by the present school laws of the State as an element in the common school system, no appropriations are made by the legislature for their support. County Boards are, however, authorized to make provision for their maintenance, and a large number are held annually. The courses of instruction heretofore adopted in some of the most successful institutes are presented, as a matter of information and comparison, in another part of this manual. See page — For several years a series of very successful State Teachers' Institutes has been held at the Normal University near Bloomington, under the direction of the faculty of that institution. The first session was held in 1863, commencing on the 14th of September and continuing nearly four weeks.

16. In Pennsylvania.—Pennsylvania reports the establishment of "Teachers' Associations, meetings of several days duration," in different parts of the State as early as 1854, with the statement, that "a few may have been held before that time." The office of County Superintendent was established in that year, and soon after came the "Teachers' Associations." Since 1867 they

have been recognized under the school laws. *Every county must hold an Institute of not less than five days. An appropriation not exceeding two hundred dollars annually, is allowed, the precise amount depends upon the attendance of teachers.*

17. In Wisconsin.—Wisconsin occupies a prominent position in the liberal provision made for the support of institutes. The first ever held in the State were organized in 1859. There is probably no State in the Union where this work is so thoroughly organized, or where it is more efficiently conducted. The institutes are under the supervision and general management of the Board of Normal School Regents. They are supported by appropriations from the income of the Normal School fund, the principal of which amounts to more than a million dollars. Thus *the Normal Schools and the Institutes are under one harmonious system of management and they mutually aid and support each other.* There are two classes of institutes, some continuing but one or two weeks, and others from four to six weeks. The instruction is largely imparted by the Professors of the Normal Schools, and the benefits of those institutions are in this manner widely diffused among the great mass of teachers throughout the State. The advantages of a comprehensive plan like this are obvious. A syllabus of the course of instruction, with some of the details of management, will be found elsewhere in this volume.

18. In Minnesota.—Minnesota was admitted into the Union in 1858. The first institute was organized at Winona, in 1860, as a preliminary step to the opening of her first State Normal School. The second was held in Saint Paul, in October 1864, continuing one week. Liberal provisions are now made for annual sessions through-

out the State. They are recognized under the school laws, and generous appropriations are made for their support by the legislature. The annual allowance for this purpose varies somewhat, but is usually from three to four thousand dollars. The length of the sessions also varies from one to four weeks. More than one thousand teachers, or about one-third of the whole number employed in the schools, were reached by this agency during the year 1873.

19. In Iowa.—Teachers' Institutes were appointed by the Superintendent of Public Instruction, and held in twenty different counties in Iowa, in the year 1858, under a law passed by the legislature on the 12th of March of that year, authorizing their establishment, and appropriating \$1,000 per annum from the State treasury to defray the expenses of teachers and lecturers in the same. The law required the application of not less than twenty teachers, through the county superintendent, to secure the appointment and the state appropriation. The number of applications increased from year to year until 1873, when eighty-five were held. From January 1, 1870, to December 31, 1871, one hundred and fifty-two institutes were held, upon which more than twelve thousand teachers were in attendance. Many of the ablest men from the colleges and the State University were teachers and lecturers before these bodies, and in some instances distinguished educators from abroad took part in the exercises. In 1874, by legislative provision, the Normal Institutes replaced the others. They have awakened great enthusiasm among the teachers, and, to quote the words of the State superintendent, "have given a grand impetus to school-work in the State." Under the new law, the term of a Normal Institute may be lengthened to four

or six weeks. The fund for their support is derived chiefly from a fee of one dollar charged for each certificate issued by county superintendents to teachers, and a registration fee of the same amount assessed upon each person attending the Normal Institute. An appropriation of fifty dollars to each county is made by the State, in aid of the Normal Institutes. This may be secured on application to the State superintendent, according to the forms prescribed in the school code. The county boards of supervisors may also appropriate such additional sum as may by them be deemed necessary for the further support of such institutes. A syllabus of the course of study to be pursued, and a programme of exercises, are prepared by the Superintendent of Public Instruction, and issued for the guidance of county superintendents and institute conductors. It is similar in character and scope to that used in Wisconsin, which will be found elsewhere. *This practice of providing beforehand a carefully considered, detailed plan, embracing the course of study and order of exercises, is one which cannot be too highly commended.* It gives point and definiteness to the work, and prevents a waste of time and effort on worthless hobbies. It is next in importance to the employment of able and accomplished instructors.

20. Early methods of conducting Institutes.

—The teachers, having been called together by the usual methods of notification, were generally organized as a single class, or arbitrarily divided into two or more classes, according to the accommodations and the number of instructors. In many cases, the first day was almost entirely consumed in the election of Presidents, Vice-Presidents, Secretaries, Treasurers, Councillors, and Committees, and in profitless wrangling over unimportant matters

connected with this inefficient and complicated machinery. The result was that the whole session was given over to divided councils and useless discussions upon questions of little moment. Where the County Superintendency existed, and the office was filled by an educated and efficient man, he generally assumed the direction of affairs, and, assisted by the ablest instructors at his command, conducted the exercises somewhat in the style of the best schools of the period. The topics discussed, in addition to the usual common school studies, were those relating to methods of teaching, governing, and management. The relations of parents and teachers, improvements in the school law, and school architecture, received a reasonable share of attention, particularly during the evening sessions. Too often, however, mere arithmetical puzzles and the hobbies of impracticable schemers, engrossed a large share of the time and attention of the teachers. Experience was required to correct these defects and impart the skill and tact necessary to direct the energies of the members into the right channels.

21. Length of the session.—In the early history of institutes they were usually continued in session but two weeks. In rare instances they were prolonged to four and even six weeks, *the interest being fully sustained to the end*. Where no Normal Schools exist, these long sessions, *when conducted by able instructors*, are especially desirable, since they afford an opportunity for a comprehensive review of the best methods of teaching the common branches, and a discussion of the principles of school management, not allowable during a brief period of one or two weeks.

22. The true test.—But it was soon found to be advisable in no case to prolong the session beyond the time *to which it is possible to sustain an active interest in*

the exercises. It is safe to affirm that more evil than good will result from a contrary policy. When the interest ceases, the profit ceases, and the institute degenerates, and finally dies out, bringing reproach upon the cause it is so well calculated to subserve.

23. What experience has taught.—The plan upon which the better class of institutes was conducted does not materially differ from the best methods now in operation. Experience has taught us many improvements in details. The progress of education, too, has led to an increase in the studies brought under review, and to a widening of the scope of professional work attempted. It cannot be too often observed, perhaps, that the chief object of the institute is to arouse a professional spirit and promote professional skill, in the assembled teachers. This truth should be the key to its organization and management, and give tone to all its exercises. The *esprit de corps* of a body of teachers once awakened, they will be stimulated by it to labor earnestly for a higher grade of scholarship, and the attainment of whatever may be necessary to a thorough and careful preparation for their work.

24. Limits of Institute work.—It should not be assumed that these temporary agencies are all that are needed for the proper preparation of teachers. To do so is practically to affirm that education is less important than the most ordinary mechanical pursuits. "There is nothing on earth so precious," says Dr. Channing, "as the mind, soul, and character of a child." As a corollary to this proposition, it may be safely asserted that there is no calling or profession so important as that which undertakes to form that character. The knowledge and skill requisite for this work, cannot be acquired in a few brief sessions of an institute, however ably conducted.

Such attainments can be the result only of years devoted to special preparation in permanent seminaries organized and conducted with reference to this particular object. The occupation of the teacher must not only eventually take rank with the so-called learned professions, but those who embrace it must possess a *profound conviction of its importance, and be inspired with an ardent love for its duties.*

CHAPTER VIII.

OBJECTS OF THE INSTITUTE FURTHER CONSIDERED.

25. Its primary purpose.—The leading object of this agency, then, is to afford the best attainable professional advantages to those who are unable, from various causes, to partake of the benefits of the more permanent agencies like the Normal schools. And since, in the present condition of education this class constitutes a great majority of the teachers employed in the common schools, the institutes must form, for some time to come, the chief reliance for such special preparation as it is practicable to give them.

26. A needful caution.—It is not wise to assume, however, that it is no part of the object of an institute to give instruction in the elements of the sciences. It is the simple truth to assert that thousands of teachers throughout our country are nearly as deficient in a knowledge of the branches to be taught as of the art of teaching, of school organization and government, and of the principles which underlie this art. A care-

ful investigation will show that their knowledge of the most simple subjects is inaccurate, vague, and disconnected. It will prove that they have groped their way among words instead of communing with vitalizing truths which alone have power to invigorate and inspire the mind. It will be seen further, that they have formed no true habits of study, that they have never learned to think, or to embody clear thought in concise and expressive language. Under such a state of facts it is clear that there is no solid foundation for that superstructure of professional knowledge so necessary to the successful management of a school.

27. Improvement in Scholarship.—It is indispensable, then, that something should be done at the institute, to inspire a higher ideal of scholarship and create a longing for greater proficiency in the branches to be taught. When able scholars are employed to give instruction, and especially where the sessions are extended to several weeks, much may be done in this direction. Example is contagious. There can scarcely be a more powerful incentive to study than the presence and labors of a scholarly and accomplished instructor.

28. Elevation of public sentiment.—No great public undertaking can long prosper in this country without the *sympathy and support of the people*. The cause of education is preëminently their cause. It is the life and glory of the republic. It ministers directly to the welfare of every citizen. Hence, the citizen as well as the government, has a vital interest in the success of all measures necessary to its promotion. Without competent teachers, no system of education can subserve its purpose. In the absence of Normal schools, institutes, and similar agencies for professional training, it is impossible to create and maintain a supply

of "able masters worthy of the high vocation of instructing the people." Hence, it follows that the PEOPLE *must be enlisted in the work*. Upon them devolves the ultimate decision of the question of an adequate support of all necessary educational measures. They are the principal parties interested. The *children* of the people are the persons to be educated. Therefore the *people* must be informed as to the condition and wants of the cause so emphatically their own. The institute affords one of the best means of presenting to them the *claims which education should ever possess upon their attention and their earnest efforts*. The evening sessions ought to be liberally devoted to the consideration of questions which more immediately concern the people in their relations to this important work.

29. Professional and social intercourse.—

The last object which will be named in this connection is the advantage which the institute presents to the teachers for professional and social intercourse. It enables them to form agreeable acquaintances, to compare views, and give to each other the benefit of their individual experiences in school work. It serves to unite them in the ties of a common interest and a fraternal sympathy. It leads to that harmony of purpose and unity of action which enable them as a class the more powerfully to influence public sentiment and concentrate it upon those measures of reform and progress which are a standing need of a system of public education. The ultimate result of this organization of influence and effort must be that our entire educational policy will be guided and controlled, as it ever should be, by those who are the most conversant with its actual condition and wants, instead of being left to the tender mercies of selfish and unscrupulous politicians. No occupation is

entitled to the rank of a profession, unless it can thus guide that course of public action upon which its final success so preëminently depends.

SUMMARY OF CHAPTERS VI., VII., AND VIII.

The aim of the preceding discussion is to show ; (1) What is the true idea of a Teachers' Institute ; (2) To explain the difference between such an organization and a voluntary deliberative body like an association or convention ; (3) To define the general objects of an Association ; (4) To state the general objects of an institute ; (5) To point out more specifically its true aims ; (6) To urge the importance of the distinction.

In tracing out the origin of the Institute, reference has been made to the meetings of teachers which were held at Hartford, Connecticut, in the years 1839 and 1840, with objects similar to those of the institute, although they did not take its distinctive name. (7) The history of the organization in the State of New York has been narrated briefly. (8) Its moving cause has been shown, with a brief reference to, (9) The infancy of Normal Schools, and, (10) To the legal recognition of institutes as a factor in the common school system. We have next considered the history of institutes (11) In Massachusetts ; (12) In New Hampshire ; (13) In Connecticut ; (14) In Ohio ; (15) In Illinois ; (16) In Pennsylvania ; (17) In Wisconsin ; (18) In Minnesota ; (19) In Iowa. (20) The early methods of conducting the institutes have been referred to ; (21) The length of the sessions is discussed ; (22) The true test as to this matter is stated ; (23) The lessons of experience, as taught by history ; (24) The limits of institute work pointed out ; (25) The primary purpose, emphasized ; (26) A needful caution given ; (27) Improvement in scholarship reaffirmed as a legitimate object, and the reasons stated ; (28) Elevation of public sentiment another and important object—the doctrine enforced ; (29) Professional and social intercourse promoted as a final object.

CHAPTER IX.

ORGANIZATION OF INSTITUTES.

1. General Remarks.—By some persons, many of the detailed suggestions embodied in the following paragraphs may be deemed superfluous. It may be thought that they will readily occur even to those who are inexperienced in the work of an institute. But the observation of the author has confirmed the belief that in many cases there has been a great lack of *previous preparation, and of proper organization even where experience should have brought wisdom*. An undertaking well organized is well begun, and “a work well begun is half done.” A little time judiciously spent in getting ready will generally prove to be *time and labor saved*. Many an institute has been spoiled by a bad beginning. Since this agency is being rapidly extended to localities where it has heretofore been unknown, it is believed that these details will not be unacceptable. And since it is becoming common to lengthen the sessions from four to six weeks, it is felt that a careful attention to all the needful details of preparation and organization will lead to better results in the work, and at the same time serve as a suggestive lesson to *young teachers in opening their own schools*. We begin by considering the preliminary steps.

2. When should the institute be held?—This question deserves some deliberation. The time may vary somewhat in different sections of the country. That which will suit the convenience of the greater

number is the best. The *few weeks immediately preceding the opening of the schools* in the spring and fall are probably the most favorable for effective work. The thoughts of teachers are then very naturally turned toward their approaching school duties. They are thus in a frame of mind to profit by the instructions of an institute, and they will participate in its exercises with a zest which will promise the best results. At its close, they will enter their schools with faculties sharpened, and views expanded by the thorough drill to which they have been subjected. It is to be presumed, also, that they will in this manner, receive an impulse toward professional improvement which will stimulate them still further to pursue the subjects that have engaged their attention at the institute.

3. Where should it be held?—Since it is one of the objects of the institute *to awaken the people to a sense of their duties to the cause of education*, it is desirable that the sessions should be held at a different point each year. The localities should of course be selected somewhat with reference to accessibility, to the accommodations they may be able to afford the teachers, and the educational needs of the surrounding country. The cities and larger villages are not necessarily the most desirable places for gatherings of this kind. Their opportunities for public lectures and other entertainments are so frequent, that the people are less likely to become interested in the practical work of an institute. It may be added that the excitements of a city are unfavorable also for securing that devotion to duty, on the part of teachers, so indispensable to complete success.

4. An active local committee to be selected.—The question of time and place being settled, it is important that there should be one or two persons selected at

the chosen spot to make thorough local preparations for the proposed meeting. To them should be assigned the duty of awakening such a degree of interest in the community as will secure for the members of the institute a pleasant and hospitable reception.

5. Public Notice.—Thorough and judicious advertising in the public press is indispensable. There are but few persons of any degree of intelligence who do not take and read a newspaper. Hence, let advertisements and notices in the editorial columns of the county papers be freely employed to give the necessary information. Carefully-prepared circulars addressed to individuals will sometimes effect more than the newspapers. These latter should give full and precise information upon all important points and should be addressed to every teacher and prominent citizen in the county. Much will depend upon the character of these public appeals. They should be vigorous in style, and as full as possible in the communication of details. They may justly urge the attendance of teachers as a debt due to their profession which they cannot without discredit refuse to discharge.

6. Personal solicitation and direct correspondence.—The most effective method of securing a full attendance is, doubtless, *personal solicitation*. The visitations of the schools by the superintendents will afford the best opportunity for the exercise of this influence, and they should not fail to exert it to the fullest extent. Whenever this is impracticable, direct correspondence may be freely employed. It will be effectual with those who occupy influential positions, whether in the profession or outside of it. Special invitations thus addressed, will secure the presence of many who may overlook or disregard the public notices.

7. Promises and performances.—Whatever in-

duancements may be held out to secure the prompt and general attendance of teachers and people, should be strictly fulfilled in the actual performance of the institute. The circulars and other means employed to give information, should be so worded as to create the impression that a full measure of practical work is to be done, and if the promise thus made can be equaled in the performance, the greater will be the assurance of success in all similar efforts in the future.

8. Instructors and Lecturers.—*Only persons of experience, ability, and scholarship* should be employed to impart instruction. Whatever is stale and commonplace, whether in matter or manner, should be avoided. Teachers of skill and of high attainments will be able to invest the plainest truths with a freshness and interest that will command both attention and respect. If local talent be available, let it be secured. There are few communities without persons possessing special gifts in one direction or another. Whenever the services of such promise to be valuable, let them be secured and made available in the work of the session. This course will encourage the worthy and the gifted to persevere in the special field of study to which they may have been attracted, and make them the more useful in future efforts.

9. Special inducements to attend.—It is sometimes the custom of superintendents to appoint the last day of the session for the examination of teachers. This practice may be made the means of inducing many to be present who would otherwise remain at home. If the general rule could be adopted of making this the exclusive occasion for granting certificates, it would do much toward compelling a general attendance of the teachers in the county. *Prompt and regular attendance during*

the entire session might indeed be made one of the conditions for granting licenses to teach. Exceptions, under carefully guarded conditions, might sometimes be necessary. But such a gentle and just compulsory regulation, if faithfully and wisely enforced, would soon fill the institutes, and its beneficial effect would be plainly evident in the improvement of the schools.

10. Personal attention to details.—Nothing can compensate for any neglect of the superintendent, or other official in charge, *to look carefully after all the details of this preliminary work.* He should be absolutely certain that all the preparations are complete, and that everything needful has been done to ensure success. To this end, a visit to the place of meeting should be made just prior to the organization. Let it be made certain that suitable rooms have been engaged; that blackboards, maps, globes, and other useful apparatus have been provided. Let it be seen that arrangements have been fully perfected for the care of the rooms; for boarding the members; for music during the session; for the evening meetings; and for the attendance of the people. It should be remembered that *these preparations cannot make themselves*, and that those only who take a deep personal interest in the matter will be likely to effect them. They are small things in themselves, and yet, it is safe to affirm that more failures have occurred from a lack in the preliminary preparations than from the real indifference of teachers to the claims of their profession.

11. Committee of reception.—At the opening of the institute the local committee should perform the duty of receiving the teachers, and assigning them to their respective boarding places for the session. Some care should be exercised in distributing the members among the families whose hospitalities they are to receive. There

is such a thing as an *adaptation of tastes and of social qualities* between the parties thus to be brought together, which should not be overlooked. It is of much importance that *the people of the vicinity and the members of the institute should be mutually pleased and profited in their intercourse with each other*. Hence the exercise of a little tact and good sense in these *social adjustments* will be a judicious and profitable investment.

12. Competent instructors.—Allusion has already been made to the necessity of able and skillful teachers and lecturers for the institute. The remarks made will bear emphasizing, even at the risk of some repetition. Nothing can compensate for a failure here. Let it not be supposed that either the teachers or the people who may attend will be satisfied with the husks of knowledge. They need, and have a right to expect, accurate, useful information, presented in a concise and attractive form. The maxim, "as is the teacher so is the school," applies in all its force to the institute.

13. Introductory Exercises.—The first regular business looking to the organization on the first day, will be a brief address by the conductor, welcoming the teachers and setting forth the objects of the meeting and the nature of the work to be accomplished, with a cordial invitation for all to enter heartily upon their duties. Immediately thereafter, two or three competent persons may be selected to act as secretaries during the session, since it is desirable that a continuous and accurate record of the proceedings should be kept for future use.

14. Enrollment of members.—The next step is the careful enrollment of the members. The name and post-office address should be neatly written in a suitable book, so arranged that it may serve as a record of daily attendance for each of the three sessions. The age of

each person and the number of months he has taught, will, if recorded, prove useful to the superintendent in making up his estimate of qualifications. To facilitate this work, a form properly ruled and appropriately headed should be prepared in advance.

15. Classification.—If the number in attendance, the number of instructors, and the accommodations be such as to warrant a division of the institute into classes, that step will now be in order. It is scarcely to be expected that the classification will be based upon any accurate estimate of the scholarship or abilities of the members. If the session is to be extended to four or six weeks something of this kind might be attempted. A day spent in a preliminary examination with this object in view might prove to be time saved in the end. But if one or two weeks only are to be occupied, the utility of an examination for such a purpose is doubtful. The chief object of the classification should be to *individualize the instruction by diminishing the number in the classes and dividing the labors of the instructors* in order to secure the highest degree of efficiency. In a small institute, convened for a brief period, a division into classes may not be desirable. There is said to be a magic in numbers, and the number in each class ought to be sufficiently great to afford all the stimulus necessary for profitable work. In some States, as Illinois, where the higher branches are required in the common schools, provision must be made for instruction in these departments at the institutes. In such cases a classification, based upon a predetermination of attainments, and previous studies, would be necessary, for obvious reasons.

- CHAPTER X.

ORGANIZATION CONTINUED.

16. Roll Call.—So far as possible *an institute for teachers should be a model school to every person in attendance. It should, therefore, be systematically organized and conducted, and the system thus illustrated in its operations should be so clearly marked as to impress itself upon the mind of every teacher present.* Otherwise, the most valuable lessons which it is capable of giving, will be lost. A loosely administered system is no better than downright disorder, so far as its influence upon the teachers is concerned. Hence, to be effective, it must be precise, and, to a certain extent, exacting. It must secure prompt obedience, which is but another name for self-denial. As a majority of the persons attending the institute are young teachers, the examples of wise organization and effective discipline which it may present, will be of inestimable value, and should not be omitted. In no respects are our schools more deficient than in these, and it is our duty to do everything in our power to reform them. The roll should be called precisely at the time appointed for each of the three daily sessions. It should be done by the same individual, if convenient, throughout the entire period of the institute in order to secure that promptness and accuracy which result from familiarity with a duty. The following method has been found convenient.

17. A plan suggested.—Let each member, at the time of enrollment, or if the institute be classified, at

the time of classification, be assigned a number by which he shall be known during the session, both at roll call and in the class exercises. As the names of so many strangers cannot be readily learned by the instructors, this or some similar arrangement will be found of great convenience. At the hour appointed, the "roll master" commands, "Attention to roll call. Class A." The members of that class, in rapid succession, announce their numbers. If there be absentees, their numbers are called by the roll master in the regular order and an appropriate mark to denote tardiness is entered in each case. This mark may be changed, when necessary, to denote absence. As soon as one class has completed its work, the roll master instantly commences the next class; as, "Class B," and so on through the list. The plan here indicated is a good one for large schools. It saves time. It secures attention and inspires prompt habits. If adopted and faithfully carried out at the institute, it will be imitated by the teachers in their schools.

18. Basis of classification.—Unless it is deemed best to classify the members according to their attainments, as heretofore suggested, they may be arbitrarily separated into groups on the basis of a continuous series of numbers assigned during the enrollment, so that the same individual would be known by the same number both at roll call and in class exercises, and no two persons would receive the same number. To illustrate; in an institute of one hundred members and four instructors, the first, or "A" class would embrace the first twenty-five persons, the second, or "B" class all those from twenty-six to fifty inclusive, &c. This plan, besides being a saving of time, tends to promote animation in the exercises, enabling the instructor to put his questions in rapid succession and stimulating the pupils to give

the closest attention. In class exercises the members should be seated in the order of their numbers so that the teachers may be able to detect at a glance, any tendency to shrink from duty by "dodging his questions." *No detail of organization ought to be omitted which may be necessary to make the most of the brief period allotted to the work of the session.*

19. Subjects to be taught and discussed.—

This must depend somewhat upon the locality to be benefited. In the newer States, where education is less advanced, where the schools are more backward, and where, perhaps, the people are less interested, it is obvious that the subjects to be considered must be of a more elementary character and the discussions less recondite than in the more advanced communities. In the latter, institutes, conventions, and associations are of long standing, and the schools have had sufficient time to bring forth the ripe fruits of culture among the inhabitants. In such places, some of the higher studies may be in order.

20. The "Common branches."—Nevertheless, it is safe to say that the discussion of the elementary studies, their underlying principles, and the best methods of teaching them, together with the subjects of school organization and management, and kindred topics, should form the chief staple of institute work everywhere. In the older communities, subjects of a more advanced grade may be introduced according to the demands of the schools. As it is the function of the common schools to lay the foundation, and of the institute to improve the common schools, it is surely the part of wisdom to confine the former chiefly to the treatment of the elementary and the simpler professional subjects. If our common schools as a whole can ever be raised to such a degree of efficiency as to teach their appropriate subjects

accurately and thoroughly to all our children and youth, they will accomplish all that can be reasonably expected of them, and more than they ever yet have done. There is a tendency to allow them to spread over too much surface, *to attempt more than they can do well*. Would it not be wise to place some limitation upon their work, and then insist that it shall be thoroughly done? The institutes, under good management, may do much to disseminate correct views upon this subject. Nor should it be forgotten that the most difficult problems in education are those connected with its elementary stages. The primary and intermediate schools demand more skill and ingenuity in their management than the high schools and colleges, because the advanced student is much better able to help himself than the little child.

21. Programme of daily exercises.—No important work of any description can be successfully prosecuted without a *well-conceived and well-executed plan*. Hence, an institute and a school must be wisely planned. The work proposed must be clearly mapped out beforehand. Nothing should be left to chance or the impulse of the moment. So far as possible, all contingencies should be foreseen and provided for. This result is best accomplished by means of a *Programme of Daily Exercises*. In the case of an institute, whose daily work must vary to some extent, the programme should embrace the details of the proceedings of each day with all their modifications. *It will be well, too, if this scheme can be printed and distributed in advance, as it will indicate to the teachers the direction which their preparations should take*. If the programme be an attractive one, it will aid in securing a large attendance. The plan which follows, is designed for a session of five days. It may be regarded as, in a certain sense, a model for study and com-

parison. It shows the various topics to be considered, and the precise time allotted to each. For a session of two or more weeks, it will only be necessary to extend the scope of the subjects here indicated sufficiently to occupy the additional time assigned. Or if it be deemed advisable to add some of the higher studies, it can be easily done. If any of the periods in the time-table are either too long or too short, they can be changed to suit differing views and circumstances. The programme submitted has been subjected to actual trial with perfect success. To afford an opportunity for examination and comparison, several programmes of institute work in different States, kindly furnished by school officers, are presented in another part of this work.

22. Importance of Programmes.— These schemes of work should be prepared with much care, and in view of the special needs of the teachers to be affected by them. They may be modified from year to year, to correspond with the progressive improvements of the schools. A programme once adopted should, as a general rule, be faithfully adhered to. Each exercise should be closed promptly at the expiration of the time appointed. To enable the instructors to terminate the lessons in a proper manner, some member of the institute may be designated each day to take charge of the time-table and give some suitable signal for closing the exercises. The use of a programme clock for such purposes is to be commended. This ingenious time-piece is so contrived that it can be set to strike to the time of any programme, however irregular its periods. Faithful attention to these little details will add greatly to the efficiency of the institute, and at the same time afford valuable hints to the assembled teachers in the management of their own schools. *Let it be*

again repeated, that as far as possible, the institute should be made a model school in all respects.

23. Topical reviews.—Sub-Lectures. Every reasonable effort should be made *to develop the power of clear and concise expression in teachers.* A teacher who cannot talk readily and to the point is radically deficient in his qualifications, and has mistaken his calling unless the defect be speedily remedied. *The power of ready expression can be attained only by patient and persistent practice.* Precept and example alone will not suffice. Occasional drill exercises in expression may be resorted to, either at the institute or in the school, by assigning topics beforehand to some of the more intelligent members at first, and then setting apart a time when, in the presence of the whole body, the results of the previous preparation may be given in the form of Sub-Lectures of five or ten minutes each. The lectures may be followed by such encouraging criticisms and suggestions as the occasion may require. During all the exercises, every effort should be made to secure accuracy and precision in the use of language. To speak and write with ease, *the pupil must be trained to use language as the medium of his ideas, and not mechanically, in connection with every study he pursues from the beginning to the end of his course.* Every lesson should, to a certain extent, be a language lesson. Since the power of a teacher depends greatly upon the skillful use of words, he should neglect no opportunity to perfect himself in that department of culture.

SUMMARY OF CHAPTERS IX. AND X.

(1) General remarks—previous preparation and thorough organization, indispensable. (2) When should the institute be held? Previous to opening of the schools in spring or fall. (3) Where should they be held? Generally at different points in successive years; reasons stated. (4) Necessity of an active local committee. (5) Public Notices, use of public press, editorial notices; Circulars carefully prepared; (6) Personal solicitation and direct correspondence the most useful in certain cases; (7) Promises and their performances—the former should be liberal and the latter faithful; (8) Instructors and lecturers should be skillful and scholarly; (9) What special inducements may be offered—examinations and certificates—a gentle compulsory provision; (10) Necessity of personal attention to details—preparations cannot make themselves. (11) The committee of arrangements to act as committee of reception; importance of proper social adjustments. (12) Necessity of competent instructors emphasized—a failure here, a failure altogether; (13) Introductory exercises—a brief address recommended, appointment of secretaries; (14) Enrollment of members, collection of certain statistics; (15) Classification, when desirable and how to be effected. (16) Roll call—the institutes as far as possible to be a model. How to call the roll rapidly—at the precise time; (17) A plan suggested and recommended. (18) Basis of classification; another suggestion; (19) Subjects to be taught and discussed—principally elementary and professional; (20) The common branches the most important; they are fundamental; (21) Necessity of a Programme of daily exercises—no successful work without a wise plan—the school no exception; (22) Importance of a programme—should be carefully adhered to; (23) Topical reviews and Sub-lectures; Cultivation of language. (24) A programme submitted for study and comparison.

PROGRAMME OF EXERCISES FOR A COUNTY

Commencing Monday, April 13, 187 . Sessions will begin promptly on

MORNING SESSION.	MONDAY.	TUESDAY.
9 to 9:02 Roll Call.	Roll Call.	Roll Call.
9:02 to 9:10 Devotional Exercises.	Devotional Exercises.	Devotional Exercises.
9:10 to 9:15 Singing.	Singing.	Reading of Minutes.
9:15 to 9:40 Opening Remarks and Organization.	Opening Remarks and Organization.	Lesson—School Organization.
9:40 to 9:55 "Aims and Duties of the Teacher."	"Aims and Duties of the Teacher."	Number Lesson.
9:55 to 10:25 Method Lessons.	School Organizat'n.	Arithmetic.
10:25 to 10:40 Method Lessons.	Illustrative—"The Least Common Multiple."	Primary Reading.
10:40 to 10:45 Essays	"System."	"Habits of the Teacher."
10:45 to 10:55 Recess.	Recess.	Recess.
10:55 to 11:20 Method Lessons.	Physical Culture.	Elocution.
11:20 to 11:35 Method Lessons.	The School Laws.	The Order of Mental Development.
11:35 to 12	School Officers' Meeting.	Methods in History.
AFTERNOON SESSION.		
2 to 2:02 Roll Call.	Roll Call.	Roll Call.
2:02 to 2:05 Singing.	Singing.	Singing.
2:05 to 2:10 Reading Minutes.	Reading of Minutes.	Reading of Minutes.
2:10 to 2:35 Method Lessons.	Theory and Practice.	Geography.
2:35 to 2:50 Methods, etc.	In Composition.	Objects.
2:50 to 3:20 Method Lessons.	Penmanship.	Penmanship.
3:20 to 3:25 Essays.	"Punctuality "	"Teaching the Alphabet."
3:25 to 3:35 Recess.	Recess.	Recess.
3:35 to 4:05 Method Lessons.	Language.	Language.
4:05 to 4:20 Methods, etc.	"Criticism."	Reading of Notes—
4:20 to 4:25	Calisthenics.	Drawn by Lot.
4:25 to 4:55 Methods, etc.	Methods in Spelling	Callisthenics.
4:55 to 5	—Discussion.	Theory and Practice
	Query Box.	of Teaching.
		Query Box.
EVENING SESSION.		
7:30 to 7:32 Roll Call.	Roll Call.	Roll Call.
7:32 to 7:38 Reading Minutes.	Reading of Minutes.	Reading of Minutes.
7:38 to 7:45 Music.	Quartette.	Solo and Chorus.
7:45 to 7:55	Essay.	Selected Reading.
7:55 to 8 Music.	Solo—"Languid Summer."	Solo—"Three Angel
8..... Lectures, etc.	"SELF CULTURE."	Visitants."
Music.	Jubilee Chorus.	"HIGHER EDUCATION."
		Chorus.

School Officers, Parents, and all who are interested in the cause of Education, April 18, May 2d. and 23d, at the School House in A—.

TEACHERS' INSTITUTE, OF ONE WEEK.

time ; twenty minutes' notice will be given by the ringing of the bell.

WEDNESDAY.	THURSDAY.	FRIDAY.
Roll Call. Devotional Exercises.	Roll Call. Devotional Exercises.	Roll Call. Devotional Exercises.
Reading of Minutes. Lesson—School Organization.	Reading of Minutes. Lesson—School Organization.	Reading of Minutes. Lesson—School Organization.
Illustrative Lesson— "The Greatest Common Divisor." Arithmetic. Primary Reading.	Number Lesson. Arithmetic. Primary Reading.	Number Lesson. Arithmetic. Discus'n—"Our Schools at the Centennial Exposition."
"Map Drawing."	"Composition Writing."	"Studying a Lesson."
Recess. The Natural Sciences. The Order of Mental Development.	Recess. Elocution. Methods in Drawing.	Recess. Elocution. Methods in Drawing.
Methods in Higher Mathematics.	Methods in U. S. History and Constitution.	Methods in Physiology and Hygiene.
Roll Call. Singing. Reading of Minutes. Geography. Illustrative—Mathematical Geography.	Roll Call. Singing. Reading of Minutes. Map Drawing. Illustrative—"The Verb."	Roll Call. Singing. Reading of Minutes. Physical Geography. Discussion—"How to conduct Recitations."
Penmanship. "Lessons."	Penmanship. "The Example of the Teacher."	Penmanship. "Ability to Govern."
Recess. Language. Form.	Recess. Language. Methods in Music.	Recess. Language. Essay—"The Model School-room."
Gymnastic Song.	Essay—"Value of Experience."	Callisthenics.
Theory and Practice of Teaching.	Criticism and Discus'n—"Correct'n of Lang'e."	Review.
Object Lesson—"The Knife."	Query Box.	Closing Exercises.
Roll Call. Reading of Minutes. Duett—"Beware."	Roll Call. Reading of Minutes. Duett—"Footsteps on the Stairs."	Roll Call. Reading of Minutes. Solo—"Disowned."
Essay—"The Faculties of the Mind." Solo—"Little Sweet-heart."	Address—"A School-room Fifty Years Ago." Solo.	Address—"Our Schools Seen by a Foreigner." Song.
Addresses—County Superintendents. Quartette.	"ELOCUTION IN THE SCHOOLS." Trio.	Address—"Effective Work." Chorus.

tion, are invited to be present at all the sessions. Teachers' Examinations,
 _____, County Superintendent.

PART III.

CHAPTER XI.

COURSE OF INSTRUCTION.

1. Preliminary Observations.—The programme at the close of Part Second, details an order of Exercises for an institute of one week. The subjects presented in this order, embrace a wide range of topics both general and professional. The scheme has been practically tested under circumstances of no little difficulty. It is, in fact, a word picture of the work accomplished at the first institute held in a frontier county of one of our frontier States. In some of its details it may not be suitable for other places, yet it will be useful as a suggestive guide everywhere. No plan can be proposed which in all particulars will meet the wants of every locality. But with minor modifications as to time, subject-matter, and order of arrangement, it is believed that the programme referred to will serve a good purpose in any institute for the promotion of elementary instruction. So far as the division of time, the subject-matter, and order of the various exercises, are concerned, the plan needs no elucidation. It explains itself. Our next step, therefore, will be to present an analysis of some of the leading subjects embraced in the programme, with sketches of a few typical lessons, as suggestions of the best methods of treating them before a class.

2. School organization.—It will be observed that this is the first important topic embraced in the order of exercises, and that it occupies its place during each day of the session. Its importance cannot be easily exaggerated. A radical defect that embarrasses a great proportion of our district schools, especially those taught by young teachers, is found to be their lack of *thorough organization*. Few of this class of teachers, and they constitute a vast majority, seem to have any well-defined ideas upon the subject. For this reason, we see them menaced with failure in the very outset of their professional career. Their schools are but little better than juvenile mass meetings, without a definite plan or purpose. They do not seem to know that without organization there can be no really successful work in the school-room. Whereas, they should be taught as a first lesson, that to secure victory on any field it must be *organized*. The subject should therefore receive systematic and careful attention wherever teachers are trained for their high vocation, at the institute and the Normal school. When it is remembered that probably nine-tenths or more of our common-school teachers are young and inexperienced, with very vague conceptions of the real nature of their duties, the necessity of increased attention to this subject will be readily apparent.

The subjoined analysis must necessarily be brief and somewhat imperfect. . But it will enable the thoughtful teacher to gather useful hints respecting the steps essential to the organization of a country school and its preparation for effective work. At an institute these suggestions thus summarily presented may be taken up successively, accompanied with such explanations and comments as the circumstances may demand.

3. Analysis and definition of the term.—

Etymology of the word Organization; What is an organ? Illustrate the meaning by several examples; What is implied by the organization of a public meeting? Of an insurance company? Of a church? Of an army? Apply these principles to the organization of a school.

4. Importance of Organization.—Give illustrations in the case of an army; of a government; of a railway company. Show that disaster must follow the absence of it in any great undertaking; No valuable results to be achieved in any direction without organization; Results usually commensurate with perfection of organization; It is the instrumentality through which *power* is successfully applied; The school, no exception to the rule; Emphasize this point.

5. Work preliminary to organization of school.—(a) Selecting or “engaging” a school; The young teacher to consider well his adaptation to a particular school before engaging it; He should know something of its peculiar difficulties, then weigh the question of his fitness to cope with them; An omission to do this a fatal mistake with many; “Fools rush in where angels fear to tread.” *Success in the first attempt* a primary consideration with young teachers; Pecuniary reward a secondary matter; Avoid difficult schools in the first trials.

School officers should also carefully study the adaptation of the teacher to their special wants before employing him; This the great question; The teacher a failure, the school a failure and the money squandered; Avarice not to supplant common sense and business principles in this connection; Cheap teachers not the *summum bonum*; A poor teacher dear at any price; A good one cheap at any price; With an unwise selection,

failure is courted in advance. The study of fitness and adaptation a mutual duty with teachers and school officers.

(b) The teacher should make known his views and plans of teaching and management to school officers while negotiating. The acquiescence of the latter to be a condition in the contract; The contract should always be in writing; It should bind the officers to the support of the teacher in all just measures; Should be signed in duplicate; Teacher should visit district and make acquaintances of parents before opening of school. Why?

6. The first day of school.—School officers should be present and introduce teacher the first day; Reasons for this; Gives appearance of moral support to teacher; Produces salutary effect upon pupils; A lesson in official courtesy; Teacher should make brief, familiar, and appropriate address to pupils; Should explain his relations to them, and theirs to him; He must strive to make the *first impressions* pleasant. Why? Special preparation for first day indispensable; Go to work with a carefully prepared plan. Leave nothing to the impulse of the moment.

7. Second step. General Exercise suggested.—To dispel embarrassment and secure confidence of children, introduce some appropriate and pleasant general exercise. This may be a familiar song; some vocal exercise, or a responsive reading of the Scriptures; If the first effort fails, try again with encouraging words; Be sure and select some exercise in which all can be induced to join; This breaks the ice. Careful forethought and preparation needful here, too.

8. Temporary classification. Third step.—

Confidence having been secured, the teacher may next proceed to ascertain the former classification of the school; He may enroll the pupils; May adopt, temporarily, classification of predecessor, if deemed advisable; But reserve the right to modify it, if necessary; Should avoid sudden and radical changes which may arouse prejudice and excite opposition; May change gradually as experience renders it necessary; Register names and ages of pupils according to classification; May assign lessons under old classification; Make recitations the means of carefully scrutinizing the attainments and abilities of pupils; Make careful record of the results of this indirect examination of each pupil; Pursue this plan until familiar with the standing of each pupil; Modify classification gradually according to these results; Be sure you are right, then go ahead.

9. Direct preliminary examination. Third step continued.—But if circumstances are favorable, the foregoing indirect method may be omitted, and a direct, thorough examination, preliminary to classification, may at once be entered upon. Value of written examination, when practicable; Oral examinations should supplement the former; Questions should be clear and comprehensive; No leading or direct questions; Should be adapted to age of pupils.

10. Formation of classes. Fourth step.—Standing or grade of pupils carefully determined, on the basis of the foregoing examination; Number of classes or grades not to exceed three or four; By exercise of tact and skill, teacher can limit the number to the above; Multiplication of classes a great evil; Studies pursued to be determined by attainment of classes; Avoid too many studies; Should not exceed three or four; Allow no overlapping of grades; Make each distinct in the

studies pursued ; The great problem to reduce the number of recitations to minimum limits ; A few things well done better than many things poorly done ; Mental and physical *capacity*, and not attainments only, an element in gradation ; Classification should conform to laws of mental evolution and true order of studies.

11. Assigning lessons. Fifth step.—After classification, lessons to be assigned ; Avoid too long lessons ; Measure carefully the abilities of pupils ; “Not how much but how well,” the true aim ; Make allowance for general exercises ; Provide for interruptions ; Devotional exercises ; Vocal music ; Physical training ; Recesses.

12. Programme of daily work. Sixth step.—System or order a law of intellectual and moral, as well as material progress ; Hence it should be made a *habit* of the mind and of the daily life ; In preparing a programme, consider that there must be a time for everything, and that everything must be limited to its time ; Teacher must look over the whole field of school duty and embrace his entire work in arrangement of programme ; Provide for study hours as well as for recitations of each class ; Assign to each duty its proper share of time and attention.

13. Principles to be regarded.—(a) Classes in lower grades require less time for each recitation, but greater frequency ; (b) Primary classes to be attended to once in each of the two daily sessions in each study, if time permit ; (c) Recitations in Grammar and Geography require more time than Reading, Spelling, and Arithmetic, generally ; Why ? (d) Primary classes to be attended to in early part of session ; Why ? (e) Classes in more advanced studies may, if necessary, be heard only on alternate days.

14. Plan of study and recitation.—In arran-

ging daily programme, provide *study hours* and *specify the subjects to be studied* throughout the day. This promotes methodical habits. It aids in the preservation of order, by providing constant and useful occupation to the pupils.

15. School Regulations.—Make but few regulations, and only as occasion requires; Once made, let them be faithfully executed; Pupils should be seated according to classification, as far as practicable, each class by itself; Teacher should control this matter, and all others of a similar nature, in his school; Class movements to be made regularly, quietly, and with precision; No disorder to be allowed, either in class or mass movements, under any circumstances; Recesses and intermissions no exception to the rule; Prompt and cheerful obedience the first lesson of life; Disorder in school, the precursor of violated law in the State; Thorough discipline indispensable; Extremes to be avoided.

16. School Registers.—Registers of attendance should be carefully kept; Make regular and accurate reports to parents concerning attendance, deportment, etc.; When practicable, publish monthly reports in local paper; Superintendents should require monthly reports of teachers according to prescribed forms; Class records, especially in large schools with large classes, not advisable; They involve too much labor, and detract from efficiency of recitation; They dissipate the power of teacher; Monthly written examinations better tests of progress than impromptu markings at recitations; Records to be in permanent form; To be transmitted to successor in office; They form basis of official reports of most important statistics; Should be uniform *throughout the country*; Should be *accurately and neatly kept*; No excuse for carelessness here.

17. Visitation of Parents.—Teachers should not neglect this duty; Such visits promote good understanding and mutual co-operation; They cultivate agreeable social relations and increase the teacher's influence; They tend to *educate parents* to an appreciation of their duties and responsibilities in the education of their children; Visitation of parents the best method of stimulating the visitation of the school.

SUMMARY OF CHAPTER XI.

(1) Preliminary Observations; The Programme; (2) School Organization; (3) Analysis and definition of the term; illustrations of meaning; a public meeting; an insurance company, etc; (4) Importance of organization; (5) Work preliminary to organization; conditions of success; (6) First day of school; (7) General exercises recommended; (8) Temporary classification, how effected; (9) Direct preliminary examination; (10) The formation of classes based upon examination; (11) Assigning lessons; a caution; (12) Programme of daily exercises; (13) Principles to be regarded; (14) Plan of study and recitation; (15) School regulations; (16) School Registers; (17) Visitation of Parents.

CHAPTER XII.

CONDUCTING RECITATIONS.

I. General Remarks.—This subject is one of great importance, and should receive careful attention, both at the institute and the Normal school. The work of the school may be said to concentrate chiefly in the recitation. Its manifold influences commingle here in

their greatest intensity. It is, so to speak, the focal point of the teacher's labors: he should, therefore, study to comprehend its objects and strive earnestly so to prepare himself as to be able fully to realize those objects.

2. A failure here, a failure altogether.—Is the teacher “apt to teach?” Is he a ready, accurate, and thorough scholar? Has he a large heart, broad sympathies, noble impulses, and a loving disposition? Or is he ignorant of his duties, ill-informed in his studies, cold-hearted and unfeeling, or passionate and severe? Then here, if anywhere, and more than elsewhere, will his true character be revealed to observing eyes and carried home to susceptible hearts.

On the other hand, a full and ready mind will always challenge the respect; a generous and kindly heart will inspire the love of pupils for their teacher. And again, ignorance, incapacity, an unfeeling disposition and a bad temper, can never fail to dishearten and disgust the child, and make a most unfavorable impression upon his character, which the flight of years will be scarcely able to obliterate.

3. Spirit of the school.—Moral uses of the Recitation.—The spirit of the school, as a whole, will ever be largely determined by the spirit that is infused into its pupils in the sharp encounter of the class-room. The ability of the teacher to do and to bear, as well as forbear, is here brought to the decisive test, and his power to shape the character of his precious charge will be made so manifest that each shall see and feel it either to his lasting benefit or irreparable injury. That the recitation has *thus its moral as well as intellectual uses*, is a truth which every teacher should lay well to heart. That it is not to be regarded and treated as a mere mechanical routine, a repetition of words without

import, memorized from a text-book, but that *it has definite and rational aims to be carefully sought and earnestly pursued*, is a proposition too evident to require demonstration. In presenting a brief outline of the subject, therefore, it may be assumed that the highest success at the recitation must presuppose on the part of the instructor a knowledge of its true theory, with the intelligence, skill, and industry to realize it in practice.

SYLLABUS.

I. The objects of the Recitation.—These are dependent upon the objects of education, which are : 1, *The development of the faculties* ; 2, *The acquisition of knowledge* ; 3, *Its wise application to the uses of life*.

The recitation must embrace these objects. Hence, the ends of the recitation may be summarily stated to be: (a) *To develop the power of quick and accurate perception, of close observation, and generally, of clear and exact thought*.

This object would lead to the consideration of the following topics having a direct bearing upon it : Formative state of the mind in early childhood ; Crudeness of its perceptions ; Necessity of guiding its activities ; Must be taught *how to use* its powers ; Must be led to form right habits of thought, study, and expression ; Early instruction should be mainly oral : Why ? The nature and order of studies for children ; The transition to text-books ; How made, and under what guidance ; Mechanical habits to be carefully avoided ; The power of association to be carefully cultivated ; The teacher a fashioner of habits of thought, feeling, and to a certain extent of action ; The recitation the place to direct and correct errors in modes of activity. (b) *Another*

object of the Recitation is to cultivate the power of concise and ready expression.

The power of expression the decisive test of knowing; No subject *properly mastered* that cannot be well expressed or communicated; Clear language the best test of clear thought; Accurate expression should go hand in hand with acquisition, from the primary stages, onward; The power of expressing thought the best standard of mental admeasurement; It teaches the pupil to know when he knows, and to know when he is ignorant; It generates a modest self-reliance and intellectual independence.

(c) *A third object of the Recitation is to determine the extent and accuracy of the learner's attainments.*

Each recitation should afford some proof of new attainments, clearer conceptions; In the absence of this, the recitation a failure; All true progress necessarily slow; Neither royal road nor railroad to temple of learning; But definite results should be aimed at in each recitation.

(d) *Another object of the Recitation, to increase the attainments of the class, to add to the knowledge that its members have acquired in their study hours.*

The teacher, whose knowledge is limited to the text, books he uses, will fail at the Recitation. A good teacher must know much more than he is expected to teach; Why? Inspiration imparted by a scholarly teacher more valuable to the pupils than the studying they do; Why? The teacher's high attainments, the pupil's greatest incentive; Thorough preparation, both general and special, the first duty.

(e) *An object of the Recitation to determine the pupils' habits and methods of study, and to correct whatever is faulty either in manner or matter.*

Man is a "bundle of habits;" Education the forma-

tion of habits and the development of character ; The pupil to be taught how to study—how to think and act ; To correct errors in methods of using the faculties the best way to prevent errors in mental acquisition ; To secure precision and accuracy in exercise and acquisition is of prime importance.

(*f*) *The moral objects of the Recitation are to cultivate sentiments of justice, kindness, forbearance, and courtesy.*

The sharp rivalries and keen competition that arise, call for the exercise of the highest moral virtues. Let generosity, charity, and love, be the ruling spirit ; The example of the teacher here almost supreme ; His manners should be winning, his temper even, his judgment cool, and his decisions prompt and just ; His influence thus rendered controlling, and the recitation a moral as well as intellectual power.

II. The preparations necessary for the Recitation.—1. By the Teacher. Preparations of two kinds, general and special ; General preparation implies a thorough knowledge of subject-matter. The lawyer must know the law ; the physician the science upon which his profession is based ; both must superadd general intelligence to their attainments. So, the Preacher and the Teacher ; The teacher should be more learned than other professional men ; Why ?

Special preparation. In the lawyer, the careful study of each case in the light of the legal principles involved ; In the physician, a thorough diagnosis of the disease of each patient as a basis of successful treatment ; In the teacher, a knowledge of his classes, of each individual, and the principles and methods of teaching most applicable to each case.

A knowledge of education as a *science*, and of its

methods as an *art*, essential. A knowledge of human nature and especially of the child's nature, indispensable. Principles the foundation of all true methods; Methods changeable, principles eternal; A thorough knowledge of principles will suggest methods best adapted to circumstances of time, place, etc.,

A general and special preparation for each recitation necessary to the highest success; A fresh examination of subject-matter and a *well-digested plan* for each recitation; Teacher should strive to put himself in the place of his pupils; Should anticipate their difficulties; Should be prepared to guide them through; This duty too generally neglected; Failure its legitimate result. Careful special preparation by each teacher would revolutionize and vitalize the schools of the country.

2. *Preparation of the pupil*.—The pupil an important factor in the work of the school; He must be taught *how to use his faculties—how to study*; Oral training the first step in the process; Use of perceptive and observing powers the foundation; The “expressive faculties;” Association, understanding, memory, imagination, reason, etc. The right use and the abuse of text-books. The mastery of ideas rather than words; As a guide to the pupils, the teacher should occupy a portion of the recitation period, when necessary, in a general survey of the succeeding lesson; Anticipating its difficulties, he should indicate to the pupils how *they* may surmount them; Teacher not to remove difficulties, so much as to teach and encourage the *pupils to help themselves*; No excellence without labor; No great excellence without severe labor; The teacher's help to be *indirect*; Self-reliance and perseverance to be inculcated at every step; The lessons of to-day to be *associated* with those previously given; Evils of fragmentary teaching; Association and

attention the basis of good memory ; Discourage mere verbal memorizing ; The habit almost universal ; Its remedy with the teacher, to be effected mainly by a proper supervision of the preparatory work of each pupil, and by a rational plan of conducting the exercises of the class-room ; In going over a new lesson in advance, the teacher should question his classes, draw out the leading ideas, and thus assist their private study by an intelligent *preliminary survey*. Pupils trained to appear at the recitation in a docile spirit ; Egotism and forwardness to be discouraged, if need be, rebuked ; Modesty the crowning excellence of the true scholar.

III. Management of the Recitation.—Movements of classes ; Signals ; The arrangement of classes ; When to be seated ; When to be standing ; Arrangement and methods of management must vary somewhat with ages and grades of pupils ; Length of recitations ; variations as above noted ; Exercises of younger pupils to be short, the children to stand ; In advanced grades the recitations to be longer, the pupils to sit, but to stand while speaking ; Attention and order indispensable ; Preliminary preparations ; Brief review of preceding lesson ; Critical examination of regular lesson ; Give each pupil a chance ; Individualize the teaching ; Ride no hobbies ; Avoid wandering ; Do not talk too much ; Speak on medium key ; Let your pupils do the work ; Beware of *leading* and *direct* questions ; Be cheerful, prompt, active ; Be critical, and encourage your pupils to be so ; Keep the *objects* of the lesson before you ; Encourage your pupils ; Thoroughly master your subject ; Avoid leaning on the text-book ; Cultivate in your pupils the right use of language ; Permit no inaccurate expression to pass uncorrected ; Beware of indistinct and inaccurate pronunciation ; Encourage natural expression ;

No unnatural tones ; Topical reviews ; Written abstracts and summaries ; Practical applications ; Apt illustrations ; Use apparatus and other material aids ; The blackboard. Assignment of new lessons ; Good judgment necessary here ; Weigh well the capacities of your pupils ; Provide for an adequate preparation of the succeeding lesson. Prompt closing of recitations ; Dismiss classes in perfect order.

SUMMARY OF CHAPTER XII.

1. *General Remarks.*—The recitation the focal point of the teacher's work. 2. A failure at the recitation equivalent to a total failure ; value of scholarship and professional skill. 3. Spirit of the school—Moral uses of the recitation.

Objects of the Recitation Specified—dependent upon the objects of education. These are : 1. The development of the faculties. 2. The acquisition of knowledge ; 3. Its wise application.

The Objects of the Recitation.—The development of thought ; Its expression in clear language ; To test extent and accuracy of the pupils' attainments ; To increase these attainments ; To form right habits of study in the pupil, and to cultivate his moral powers.

The Preparation for the Recitation.—1. By the teacher ; 2. By the pupil. The first of two kinds, general and special. Both defined and illustrated. The preparations of the pupil particularized.

The Management of the Recitation.—Indicated in detail ; Movements of classes, Arrangement, when seated, and when standing ; Use of signals ; Length of recitations ; When varied ; Attention and order indispensable ; Brief review ; Critical examination of subjects, Individualizing instruction ; Pupils to do the work ; Wrong questioning to be avoided ; Objects of the lesson to be kept in view ; Thorough mastery of the subject necessary ; Abuse of text-books ; Distinct enunciation ; Natural expression ; Reviews, use of apparatus, etc.

CHAPTER XIII.

METHODS IN READING.

1. Importance of the Subject.—Reading is the most important subject taught at school. It is especially important that it be thoroughly taught in the primary classes. It is first in the order of time. It tends quite as much as any other branch to awaken the young mind and give to its powers their earliest impulse in the pathway of knowledge and in their career of progressive development.

No subject can afford a child more pleasure and profit than this, if rightly taught, with an intelligent appreciation by the pupil of all that he reads. There must be no mere machine-work in the process. This is especially true in this "age of reading," when almost every child of five years or more is furnished with a "Children's Paper" or magazine, to say nothing of the multitude of juvenile books issued from the American press.

2. A stronger reason.—But there is a still stronger reason why the best methods of teaching reading should be practiced in the primary school. A large majority of the children of this country obtain all the instruction they ever receive at school, in the primary grade. Statistics prove that nineteen-twentieths of our juvenile population leave the schools prior to the age of ten or eleven years. It is therefore a most serious question with every conscientious teacher: "How can I do the most for these citizens in embryo, during the brief period allotted to their school training?"

3. Ideas from the beginning.—Every effort ought to be directed from the outset to *shaping the mind of the child*, so that when no longer under the teacher's care, *he may be able to help himself*. He should be assisted and encouraged to become an interested and self-reliant worker, instead of a mere mechanical imitator. Thus, in the end, he will possess an awakened and disciplined mind.

4. Development and discipline.—The work of the primary teacher is especially to *draw out, to form, and strengthen*, and not merely to impart. Let every lesson in reading given to a primary class be such as to interest the children, exercise their perceptive faculties, and form *mental pictures* of the subjects presented. In this way the lesson will be rendered both pleasing and profitable.

5. Special Preparation.—Years are usually spent in teaching reading, to little purpose, simply because no thought and interest are awakened in the subject. Every lesson should be carefully considered and prepared beforehand by the teacher. It matters not how simple the lesson may be, previous preparation is indispensable. This will add new power, and generate better methods by means of which success will be assured. The teacher will become independent, self-reliant, and a *law unto himself*.

6. Different systems noticed.—There are four different methods of teaching reading that have received a distinct recognition; the Alphabetic, the Word, the Phonic, and the Sentence method. The latter is not generally known. It will be more particularly noticed hereafter. Neither of the four, when taken by itself, can be said to form a *perfect* system. Each has its special office to perform. Each may be said to constitute a part of a complete plan, by means of which pupils in a

brief period may be taught to read with fluency, ease, and correct expression.

The drudgery of the Alphabetic method, by which the children of a past generation, standing at the teacher's knee, slowly and mechanically memorized the twenty-six letters, and as slowly conquered the difficulties of *a-b*, *ab*, and *b-a*, *ba*, is partially superseded by the pleasanter and more profitable Word method which is coming into general use in the better class of schools. But however satisfactory this system may be for beginners, in a short time the need of something more is felt. The teacher cannot always stand at the side of a child, to present objects and illustrate quality and action words. Some means must be devised by which the pupil may become independent of the teacher, and made able to help himself. The Phonic method affords a key to the solution of the difficulty. If used exclusively at first, it is a mere jargon of unmeaning sounds, conveying but little significance to the child's mind. When employed, however, in conjunction with the word method, it gives to the pupil the aid he needs in learning new words for himself. The Phonic method thus enlarges the field which is opened to the learner by the Word method.

7. The Word Method explained.—For beginners the teacher should select words that are the names of objects familiar to the pupils, as *cat*, *dog*, *cow*, etc. "Quality words" may also be employed, as *white*, *black*, *large*, *small*, etc.

Let the teacher talk to the class about some familiar object, as a *cat*. Show the picture of a cat. Ask questions to draw out what the children know of the object. Tell a short story about the cat. Having in this manner excited an interest, show the class the word *cat*, requiring the children to pronounce it several times, separately

and in concert. Call for volunteers to tell something that a cat can do, and to name some part of its body. Next point to the word *cat* written upon the board with several other words, and call upon different pupils to point to and name it. Let some members of the class take a pointer and find the word on the reading chart or card. In like manner teach the word "black" showing something black, and thus gradually developing the idea. Print the words *a*, *black*, and *cat* upon the board. Call upon a pupil to speak the words in succession, and at once you have a phrase conveying a distinct idea. Then ask a number of questions about a black cat, and change the order of the words, placing one above the other. Now let the class name the words. Erase and again arrange them in a phrase, writing instead of printing them, and calling the attention of the children to the fact that words have two forms, written and printed.

8. Children write the words.—If the pupils are receiving, as they should be, lessons in writing, in a very short time they will be able to copy the sentences from the board on their slates, which should be carefully ruled for the purpose. This is a very important exercise, not only on account of the *practice in writing* which it affords, but it gives the children something *attractive and useful to do, and prevents mischievous habits*, greatly lightening the burden of disciplining them.

In this or some similar manner, fifty or sixty words may be taught and combined into phrases, sentences, and brief stories. This work can be accomplished easily in some six or eight weeks. Up to this time, perhaps only the cards and the blackboard have been used. The primers may now be gradually introduced, in connection with the other aids, and finally the transition may

be made to books, by stages so easy as to be nearly imperceptible. The children should be required to study their reading lessons carefully.

9. The Phonic Method Explained.—The pupils having accomplished the work indicated under the word method, and having been taught *incidentally* the names of some of the more important letters, are now prepared to learn the simple elementary sounds. To do this, the following or some similar plan may be adopted: Let the teacher pronounce slowly and distinctly some word with which the children are familiar, as the word *cat*. Require the learners to speak the same word, imitating the teachers manner of enunciating it. Now ask the children to utter the sound first heard in the word. Let it be simultaneously repeated by the entire class several times. The teacher now writes the letter *c* upon the board where all can see it. Pointing to the letter she utters its sound distinctly, requiring the class to repeat it while looking at the letter. The sound of each of the other letters in the word is given, and is repeated by the children in a similar manner. The separate sounds having been mastered, the class are taught to repeat them in rapid succession until they at once see that the united sounds produce the word *cat*.

Several other words, containing the short sound of *a*, as *rat*, *bat*, *hat*, *sad*, *mat*, *fat*, etc., should be treated in a similar manner to the foregoing, the teacher being particular each day to review the sounds previously learned. Monosyllables containing short *e* may now be introduced, as *red*, *bed*, *met*, etc. Subsequently, simple words containing other elements should be selected, until the sounds of the language are mastered and their combinations to form words are quite familiar. After the sounds of several consonants have been learned, the teacher may

occasionally select a word, as *red*, and giving the sound of the first letter, ask the class what letter stands for the sound. The children having named the letter, it is written upon the board. Next place some new vowel to the right of the *r*, as *e* short. Pointing to the vowel the teacher gives its sound, the class repeating it several times. The sound of *a* is then given, the children being already acquainted with it, and the letter is also written upon the board. The pupils now give all the sounds in rapid succession, and without difficulty pronounce the word *red*.

Similar exercises with the remaining vowels are given, avoiding for the present all double vowels and silent letters, these difficulties being introduced at a later period when the children have mastered the simplest elementary sounds.

As the pupils become familiar with the sounds of the letters, the teacher gradually places before them new words, and requires them to give the sounds and pronounce the words without assistance. To introduce variety, the teacher may sometimes pronounce words, the pupils giving the sounds. *Spelling by letter* should not be neglected, but should accompany every exercise in phonics. *Spelling by sound* is a most useful vocal drill for pupils of any age, and for an entire school. It may be introduced in the intervals between recitations, before the close of the session, or whenever the pupils become listless or weary of the ordinary exercises of the school.

10. Farther Suggestions.—It is best to continue the word method until the pupils can read a number of sentences with fluency and an easy, natural expression. Having accomplished this, the children may well feel that much has been done, and they are prepared and encouraged to learn new words by the pho-

nic method. They are taught, of course, to recognize the word as a whole, precisely as they do an object. Whenever they are able to name words at sight quickly, there arises a desire to know their parts, the letters, and this is the proper time to resort to the use of the sounds represented by the letters. By the methods suggested, children are enabled to read with more interest and expression in a far shorter time than by the plans heretofore generally pursued.

11. The "Sentence Method."*—By this method the teacher does not begin with the letters, nor with *separate* words, but with *words in combination*, as the simplest expression of the simplest mental element—a thought. From this combination of words as the unit, the separate words are learned, as the letters are learned by the Word Method, that is to say, without special effort and almost if not quite unconsciously.

In teaching by the Word Method the child's attention is first called to the *meaning* of the word and then to the *form* and pronunciation. In the Sentence Method the attention is first directed to the *idea*. To this end, real objects and facts are at first employed to appeal to the *senses* and to demand of the *child* words to give the *idea* oral expression, precisely as they were appealed to when he learned to talk. The eye and the mind are taught to recognize and regard a representation to the eye, (written words) of the oral language, as the simplest representation of the idea. Language is used to express ideas. In learning to talk, children acquire ideas from objects, and then seek language to express them. In seeking the language, they do not so much regard the *separate* meaning of

* See the Reading Book entitled "Sentence Method," by John R. Webb.

the words they use, as the *combined* meaning, because the idea which they wish to express cannot be embodied in the separate words. It requires a combination of words, "because it takes the combination of words to give birth to the idea."

This principle, which applies with equal force to written language, is said to have suggested the idea of the "Sentence Method." In teaching reading it should, according to the author of the system, be the aim of the teacher not so much to teach separate sounds, letters, and words, as to develop and secure the proper expression of thought. Of course, the letters and words must be known, but as they will necessarily become known by this method, without much special teaching, they are regarded and treated as of secondary importance for the time being.

The advantages claimed for this method over others, are thus stated:

(a) It inspires and develops ideas in the mind of the child in a perfectly natural way—through objects.

(b) The ideas thus becoming the child's property are expressed almost necessarily in a proper manner.

(c) It trains the eye to "take in" and the mind to comprehend both words and ideas in advance of the voice, each of which is necessary to natural reading.

(d) It trains the child to look through the words to the thoughts, by directing his attention, not to the medium of expression, word-forms, but to the ideas beyond. It thus makes easy, natural, and intelligent readers, and not awkward, unnatural, and thoughtless ones.

(e) While doing this work, it is further claimed, that it accomplishes all that the other methods do, without additional time.

CHAPTER XIV.

READING CONTINUED.

12. The more advanced Primary Lessons.—

Having conducted the class through so much of the "Word and Phonic Methods" as may be deemed profitable, lessons may be assigned upon pages containing pictures, with numerous familiar words. A conversation may be carried on between the teacher and the class, and the meaning of each lesson may be drawn from the children. A number of words may be written upon the board and the learners may be exercised in finding the same words in their books. The teacher may next write sentences on the board, leading the class to comprehend the meaning intended by each word. Now let each word be pronounced accurately, and each pupil led to know and appreciate the power of emphasis in bringing out the sense of a passage. The other graces of good reading may be gradually taught by example and judicious questioning in a similar manner.

13. An Important Caution.—*Never allow a class to read a lesson, until you have developed the meaning in a manner suited to the understanding of the children.* Let words frequently be spelled, both by letter and sound. Let miscalled and mispronounced words be carefully corrected, as far as possible by *the pupils themselves*, thus cultivating the ear and stimulating the attention. At each lesson, the teacher and the members of the class may alternately read word by word as rapidly as may be compatible with accuracy. This is an excellent practice,

cultivating attention, and enabling the pupils rapidly to recognize words at sight. The teacher should question constantly and closely concerning the meaning of words and sentences. Require a portion of each reading lesson to be written on the slates. The class should stand in line, erect, square to the front, on both feet, with hands and books in an easy position, so as to allow a free play of the vocal organs. Finally, let it be remembered that good reading is the result only of careful, earnest, thorough work on the part of teacher and pupils.

INTERMEDIATE READING.

14. Preliminary Remarks.—"Just as the twig is bent the tree is inclined," is an old proverb as true to-day as when first uttered ; and no study can claim its application with more force than Reading.

If, from the time the pupil begins to read until he passes the Third Reader grade, no care is taken respecting emphasis, accent, and enunciation; if he is allowed to read the thoughts of others, without thinking them ; to pronounce words carelessly and without knowing their meaning; difficult indeed will be the task of making that pupil a good reader or a careful thinker.

15. Practical Suggestions.—From the time the child enters the lowest primary class, and begins to learn the simple words *cat, dog, man, boy, etc.*, he should never be allowed to pronounce one word indistinctly. The teacher should insist that the thought embodied in every sentence should be accurately rendered by the pupil. If the thought be joyous, let joy be expressed ; if sad, let sorrow characterize the style of reading.

No word should be passed over, with the meaning of which the pupils are not thoroughly conversant.

No study can be taught better *incidentally*, than

reading. In every recitation, whether it be geography, arithmetic, language, or any other, the teacher should insist upon a distinct utterance of every word, and an easy natural expression. Let the "singsong drawl" and the "nasal twang," which so often prevail in the school-room, be avoided. If the pupil be required to describe a river, a mountain system, or a race of people, the lesson ought not to be pronounced good unless given in a vivacious and intelligible manner. Each recitation of the right kind, while answering its special purpose, will make a better speaker and reader.

16. The Method.—No cast-iron model for conducting a class in reading can be constructed. The method should vary. If the teacher be blessed with a reasonable amount of originality, he will be able to *invent* many exercises which will be both pleasant and profitable. Three or four minutes at the beginning of each lesson may be spent in *vocal drill*. A short exercise in breathing is always useful. It may be conducted somewhat in the following style: Let the members of the class inhale slowly, drawing in the breath as fully as possible; then exhale in the same manner. Again, inhale slowly, exhale rapidly, and occasionally in a forcible style. Or, while exhaling, let them count audibly as long as they can do so without injuring the lungs. After a deep inhalation, let the pupils slowly utter one of the long vowel sounds, as "ā," and thus determine who can give it unbroken the longest. This exercise is very valuable, as it trains the *pupil to an economical use of the breath in reading and speaking*. It also gives strength and clearness to the voice.

A short drill in phonic spelling, and the pronunciation of words which involve somewhat difficult combinations of the *sub-vocal* and *aspirate* sounds, will greatly aid the articulation and accent.

A brief exercise of this kind always brightens up a class, and places it in a better condition for good reading.

Before books are opened, *the subject matter of the lesson should be thoroughly examined* and the class required to spell and carefully pronounce the more difficult words.

Concert of action should be required in raising and opening the books, and perfect attention secured during the entire lesson.

An alternation in the pronunciation of the words of the lesson, between the teacher and the class in regular order, is a valuable exercise. It holds the attention of the class, and tests the ability of the pupils to pronounce the words correctly and readily. One sentence is all that the teacher should require to be read at a time. This should be criticised and re-read until it has been rendered correctly by several members of the class. After the entire paragraph has been finished by sentences, it may be read by individual members, and in concert by the class.

If the teacher be enthusiastic and earnest he will be likely to infuse into his pupils the same spirit, and, even a reading lesson will be rendered enjoyable as well as profitable.

SUMMARY OF CHAPTERS XIII. AND XIV.

(1) Importance of primary reading being well taught; should be taught intelligently, not mechanically; (2) A stronger reason urged; (3) Ideas from the beginning: self-reliance inculcated; (4) Development and Discipline; (5) Special preparation necessary by the teacher; (6) Different systems of teaching referred to; the Alphabetic; Word; Phonic; "Thought and Sentence"; (7) Word Method explained; (8) Children to write words, words combined into phrases and sentences; (9) Phonic method explained; short monosyllables at first; Examples given; (10) Further suggestions

on the Word and Phonic methods; (11) The "Thought and Sentence Method" referred to; (12) The more advanced primary lessons; (13) Important caution; make the subject matter understood before reading.

INTERMEDIATE READING.

(14) Preliminary Remarks; value of correct primary lessons; (15) Practical suggestions; distinct pronunciation insisted upon at every step; the meaning of every word to be made familiar to the pupil; value of incidental teaching of reading in connection with other studies; (16) Mode of teaching intermediate reading explained; it must vary; vocal drill; inhalation and exhalation; economical use of breath; phonic spelling; concert of action; alternate pronunciation of the words of the lesson by teacher and class; one sentence at a time; then the paragraph; individual and simultaneous reading; enthusiasm of the teacher.

CHAPTER XV.

METHODS IN SPELLING.

1. Oral Spelling not a test of accuracy.—A good speller is not necessarily the person who is able orally to name every letter in the words of a prescribed list. But he is one who *habitually* gives the correct *form* to every word in his written exercises. It is only *in written language*, that correct spelling possesses any value.

2. Rules for Spelling of little use.—It has also been found by repeated experiments that rules for spelling are practically of little avail. It is, moreover, quite impossible to *memorize by their letters* all the words in our language. Hence, there seems to be but one general course left to us, and that is so to *cultivate the pow-*

ers of observation and memory, that the mind may receive and retain the correct *form* of every word which falls under the eye, and which it becomes necessary to use in written discourse.

3. Ideas of form, position, etc.—Whatever tends, therefore, to develop ideas of form, position, distance, direction, and size, cultivates the powers requisite in a good speller. Reading, Writing, Botany, Drawing, and Geometry, are especially adapted to develop and cultivate these powers. Writing, Botany, Drawing, and Geometry have also a direct tendency to strengthen the memory.

4. Perceptive powers in early life.—Since the perceptive powers are more keenly active in early life than at any other period, these and similar subjects, should then be taught in their elements. If no careless work be allowed, but *accuracy and neatness* in every particular be required, habits of careful attention will be formed during the first ten years of the child's life, which will go far toward securing the ability to spell correctly. *But if habits of carelessness and inaccuracy are allowed to be formed in childhood, no ordinary efforts in after life can overcome the defects, or supply the deficiencies that result from such habits. Poor spelling will be one of the natural results of such a course. A bad speller at sixteen years of age will usually remain so through life.*

5. When and how to begin to teach spelling.—As soon as the pupils can write, which, in a well-conducted school, is about as soon as they can read, special instruction in spelling in the form of written exercises should be introduced, and the children should be required both to write and spell orally every word in their reading and all other lessons. Each word should be regarded as a *picture* which they are to copy. The

study of its *form* gives them a mental image, which they should afterwards strive accurately to reproduce from memory.

6. Children should see no misspelled words.—No misspelled words should be placed before young children, in the early stages of their course especially. They should see only correct forms, if we wish them to receive accurate mental impressions.

7. Pronunciation and meaning of words to be associated with form.—In connection with the form, should be learned the correct pronunciation and meaning of the words. If the three be associated in the child's mind, he can the more easily remember them all, than he can otherwise retain either one or two of them. Correct ideas of the *meaning* of words can be given by the objective method, which will be explained hereafter, and by their use in sentences and in common conversation.

Correct ideas of the *forms* of words can be impressed only by written or printed exercises.

Correct ideas of the *enunciation* of words, and of the powers of letters developing the organs of speech, can be given by *oral exercises* carefully conducted.

In the primary school, the meaning of words should be *developed* according to methods similar to those which are employed in teaching reading.

8. Constructive Method.—If block-letters can be obtained, young children can be profitably employed in *constructing words* which the teacher has previously placed on the blackboard for their imitation. As soon as the pupils can write, the words should be written, afterwards spelled orally, then introduced into sentences and the sentences written. *Thus far we have assumed that the children need spell only those words which they employ in other lessons or in ordinary conversation.*

9. Objective Method.—With the Second reader can be introduced object spelling lessons similar to the following : Suppose a leaf to be selected as the object. The pupils find by careful examination the different parts, as the surfaces, upper and under, the margin, base, apex, mid-rib, and veins. Their uses are then talked about and the words carefully written by the teacher on the blackboard. The pupils are required to copy, and afterwards orally to spell and introduce them into sentences. In due time the properties of the objects should be considered in a similar manner, and short compositions containing the words learned may be required.

Such a lesson forms a very pleasing and an exceedingly profitable exercise. It leads the children carefully to examine everything they see, and adds materially to their stock of words.

10. Extension of this Method.—Exercises similar to these can be extended indefinitely, and made to include the elements of Geography, Geometry, Natural Philosophy, Chemistry, and Geology, and in fact the elements of almost every science, forming the basis of their future study and saving much time and labor, when, if ever, these subjects shall be introduced into their course of instruction.

11. Spelling and Definition—Use of Dictionary.—If the pupils are so far advanced as to be able to use the dictionary, they may be required to bring to the recitation a certain number of words, with their meanings, which shall indicate the parts, qualities, uses, etc., of an object previously assigned by the teacher. From these lists a selection may be made for the next lesson, and each child will not only spell and define his

own list, but all the words presented by the other members of the class.

12. Another plan proposed.—The following method may be profitably pursued. The teacher places a certain number of words on the blackboard, requiring the children to copy, learn to define, and use them in the composition of sentences.

If habits of close observation have been formed in childhood, advanced classes will need but little drill in spelling as such. The incidental practice which they will obtain in the written exercises, in connection with their recitations in other subjects, will be sufficient.

A variety of other methods of conducting spelling lessons may easily be introduced, among which the following are suggested :

13. First Method.—Suppose the lesson to have been assigned, and the words carefully examined by the pupils. With slates and pencils, paper and pencils, or upon the blackboard, the pupils write as the teacher pronounces, either the words, or sentences containing the words to be spelled.

14. Second Method.—Or the pupils may be required to *write the words and their definitions*, after which each one may compose a sentence containing a part or all of the words, as the case may be. Or, a short composition may be prepared containing all the words.

15. Third Method.—*Sentence writing as a test summary is exceedingly valuable, as the attention is then given more especially to the thought expressed than to the forms of the words*, and if the pupils have not previously become perfectly familiar with the words they will be likely to omit or misplace some of the letters. After the exercise is written, *the pupils may exchange*

their work and correct the errors in each other's exercises. Each pupil may read one word, or one pupil may read several, or all of the words, according to the judgment of the teacher. Or, if preferred, monitors or section officers may be appointed to examine the work, and report to the teacher.

Every misspelled word should lower the standing of the pupil, and he should be required *to learn and afterwards to write it several times.*

16. Oral Methods.—Oral exercises are far less valuable than written, for reasons already assigned; but they may be introduced to give interest and variety to the lessons. In these lessons the pupils may spell by turns, spell for places, spell down, or choose sides for a spirited contest in spelling. One person may spell a portion or all of the words, the other members of the class pronouncing from memory.

17. Mixed Method.—An exercise like the following may be introduced as a review in advanced classes. It may be either written or oral, or both. Assign for the lesson the names of classes of objects, as animals, flowers, minerals, fruits, or qualities, places, acts, etc. Suppose animals form the subject of the lesson. Each pupil in turn will pronounce and spell a name which begins with the final letter of the preceding one. For instance, one pupil spells the word elephant. Another must select the name of an animal that begins with "t," as tiger, while a third chooses one commencing with the letter "r," as rhinoceros, and a fourth with "s," as seal, etc.

This exercise classifies the words according to subjects, and assists the memory in retaining both the forms of the words and their meaning.

18. Classification according to Orthography.

—When the pupil has acquired a fair knowledge of words, he may be led to classify them according to their orthography, and to *construct rules based upon their affinities, differences, etc.*, if deemed expedient. It is far better that the rules for spelling be *deduced by the pupils from examples of particular words*, than that they should be arbitrarily committed to memory. But after all, the ability to spell correctly must depend *mainly upon the learner's habits of observation*. If careless and inaccurate in everything else, his want of exactness will be clearly manifested in his efforts to spell the words of his language.

SUMMARY OF CHAPTER XV.

(1) Oral spelling not a test of accuracy ; (2) Rules for spelling of little use ; (3) Ideas of form, position, etc., to be cultivated ; (4) Perceptive Powers to be trained in early life ; (5) When and how to begin to teach spelling ; (6) Children should *see* no misspelled words ; (7) Pronunciation and meaning of words to be associated with form ; (8) The Constructive method ; (9) The Objective method ; (10) Extension of the latter method to the terms employed in the different sciences ; (11) Spelling and definition, use of Dictionary ; (12) Another plan proposed ; (13) First method, use of slates, etc. ; (14) Second method, writing words and their definitions ; (15) Third method, writing of sentences as a test summary ; (16) Oral methods suggested ; (17) The Mixed method—Classes of objects and their names ; (18) Classification according to orthography—Construction of rules by the pupil, from examples of particular words.

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CHAPTER XVI.

METHODS IN DRAWING.

1. General Remarks.—So much has recently been said and written upon the subject of Drawing, it has so long held such a prominent position in the schools of Europe, and is now being so generally introduced into the best schools of our own country, that an elaborate essay on its importance is scarcely necessary in this place. A few suggestions only, will be made respecting its objects and the methods to be employed in attaining them.

2. The powers of perception and observation.—Knowledge depends to a considerable extent upon the powers of perception, and whatever cultivates these powers tends to develop the mind. Drawing is especially adapted to strengthen the powers of observation. That eminent painter and scholar, Rubens, once said : "To see, to understand, to remember, is to know." The practice of *carefully looking at objects begets keenness of perception. That of faithfully delineating them, accuracy of observation.*

3. Understanding and Memory.—The representation of an object is a problem, the correct solution of which depends upon fixed principles just as surely as does the solution of problems in mathematics. In neither case can the desired result be attained until the laws relating to it are thoroughly investigated, understood, and applied. A thoughtful study of objects develops *the power of understanding.* Picturing things from memory, *thoroughly tests and strengthens this faculty.*

4. Drawing trains the knowing and the executive faculties.—Practice in drawing imparts such a *control of the hand*, as will enable it readily to obey the dictates of the mind. Hence, it follows that he who is learning to draw is learning “to see, to understand, to remember,” and to do. With these ideas before us we can easily comprehend that drawing must be an *intellectual* before it can become a successful *physical* exercise. The enjoyment of beautiful things, picture making, and the like, though valuable in themselves, are not the important ends to be attained in drawing. They are *means* rather than ends. As means they may develop the individual by cultivating perception, judgment, memory, and taste, as well as manual dexterity and skill—powers whose proper exercise opens the way to the accomplishment of any object.

5. Suggestions of Methods.—One person suggests a landscape, another a building in ruins, or a dilapidated fence, confidently expecting to cultivate the eye, the hand, the perceptive faculties, the æsthetic nature, and at the same time become possessor of a fine picture.

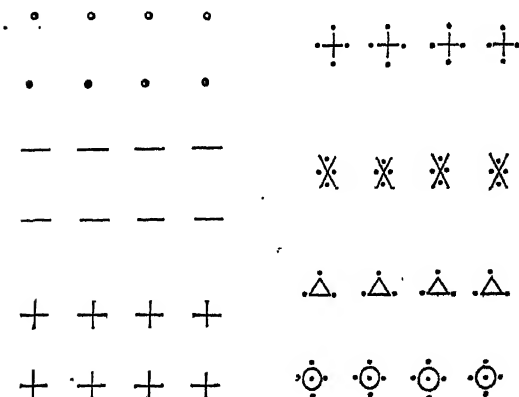
6. A Radical Error.—Such drawing in the early part of the course is a *positive injury*, inasmuch as the pupil is constantly tempted to “improve upon nature” by changing an outline here, and varying the light there; or, if a slight mistake is made, covering it with an additional vine or fence-post. Although these changes may not in the least affect the beauty of the drawing, or its general likeness to the original, it cannot be too strongly impressed upon the teacher that *such work defeats its own object, since the eye is thus accustomed to look carelessly at everything.*

It is confidently believed that the desired result can be attained only by a careful and long-continued study

of example and object, presenting *decided outlines*, and at the same time, clearly and pointedly illustrating the great *laws of drawing*.

The following sketch of the plans which may be pursued, beginning in the primary school, is presented as a basis of the work that may be attempted at an institute. The first lessons will appear very simple and of little value. But to the *beginner, whether young or old*, they will prove both difficult and highly important.

Let it be remembered that "he who can learn to write can learn to draw," and that *application* and *perseverance* will soon make the most obstinate doubter a convert to this doctrine.



The object of the above lessons is to train the mind to judge promptly and accurately of *position, size, form, distance, and direction*.

It will soon be learned that it is not an easy task to draw *a straight line*. Hence, lines may be omitted at first

and the class may be exercised in the use of dots, short marks, squares, and other small figures, as in the foregoing group. These different characters should not, of course, all be introduced at once, but gradually. Children like variety, and the ingenious, watchful teacher will not allow them to become weary of any lesson.

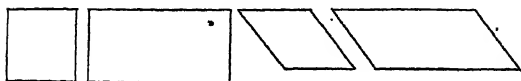
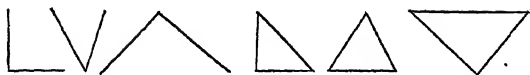
7. Combinations of these simple figures.—

If a little encouragement be given, some very pleasing groups, combining the different marks and figures may be produced, thus developing the *inventive faculties*, and cultivating the tastes of the pupils.

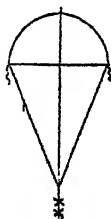
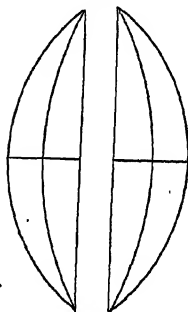
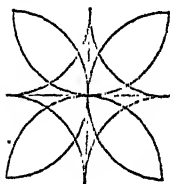
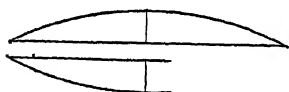
8. Direction, Length, Form.—Thus far the lessons have had a direct bearing upon position, size, and distance. At the end of two to four weeks, with straight lines and their combinations, ideas of *direction, length, and form*, should be presented, introducing *lines* in the following order: horizontal; vertical; right oblique; left oblique, as in the Second group. As soon as the learners are able to draw tolerably straight lines in different directions, it will be advisable to give them the exact measure of an inch, requiring them to draw lines of different given lengths and directions, subdividing them into halves, thirds, etc., as in the Second group.



9. Ideas of Form.—The idea of form can now be introduced by combining these lines into angles, squares, rectangles, and similar figures, as in the Third group. Care must be taken to teach the name and definition of each, and lead the pupils to classify the different forms.



10. Use of Curves.—Curves and their combinations should next follow, selecting the easiest first; as, *horizontal above, horizontal below*; *vertical left; vertical right*, etc.; as given in the Fourth group.



11. Outlines of Common Objects.—During the

preceding lessons the attention has been given exclusively to surface work. In order that the pupils may be constantly applying their knowledge in practical life, the teacher should often present different forms of paper, or pasteboard, so cut as to represent the *outlines of common objects*, and require the learners to picture these forms. Leaves of plants may also be freely used as patterns, and the drawing lessons will thus become intimately associated with *real things*.

These exercises can be varied and multiplied to an indefinite extent, so that from one to three terms can be profitably occupied in similar lessons.

The subject of Drawing has become, during late years, so thoroughly systematized and simplified, its principles and methods have been so clearly elucidated, and useful works so greatly multiplied, that there is now really but one obstacle to its universal and successful introduction as a branch of common education. That obstacle, let it suffice to say, is the *indifference, or the lack of persevering industry on the part of teachers*. Where there is a will in respect to this matter there is emphatically a way. Let such works as those of Walter Smith, Chapman, and others, be studied, and their valuable lessons practically and persistently applied, and drawing will become an attainment as common as reading or writing, to which it can scarcely be said to rank second in importance.

12. Developing Lessons.—Our object in teaching this useful branch is to cultivate *certain powers*. These powers can be developed only by vigorous exercise. This exercise cannot be secured by communicating facts to the pupil. He must be led by judicious questioning and gradual approaches to perceive those facts for himself. This is really true in regard to every subject

to be taught to beginners, and it is especially so with drawing.

When we speak of teaching a fact or principle, it should not be understood that the *words* in which it is embodied are in some direct manner to be put into the pupil's mouth, but rather by a judicious course of logical questioning he is to be led from the known to the unknown, and *aided* to the *discovery* of the truth that should find a lodgment in his understanding and memory.

CHAPTER XVII

DRAWING CONTINUED—WRITING.

13. Advanced Lessons—Solids.—The most difficult steps in drawing now present themselves for consideration—the representation of solids. Just here let it be remarked that much depends upon the care with which the preceding steps have been taken. If the previous lessons have been *thoroughly mastered*, the succeeding ones will be comparatively easy. The true plan now is to present to the class both the *object and its picture*, beginning with the simple straight-line objects, and gradually developing and introducing the principles and their difficult applications. The cube is an excellent subject for the beginning. The learners have previously represented its surfaces as squares, and they immediately perceive these forms. With a little judicious questioning they will soon perceive that, although the surface of a cube is made up of squares, yet no two faces *appear at the same time* to be square. Objects must therefore have two forms, the *real* and the *apparent*. Each form is the basis of a particular kind of drawing.

The representation of the *real* form is industrial, or mechanical drawing, which is especially important in the mechanic arts.

The representation of the *apparent* form is *perspective* drawing. It is less important in mechanics, but it leads more directly to the fine arts.

A knowledge of one branch does not necessarily insure a knowledge of the principles of the other. But the ability to perceive and represent one class of forms greatly aids in picturing the other.

14. Principles of Perspective.—The representation of the apparent forms involves the principles of perspective, which *should be developed only as the mind is prepared by a careful study of the object and its picture to receive them.*

With the cube in *parallel perspective*, a little below and to the left of the eye, by proper questioning and measurements, the learners can be led to perceive that only one face appears square, and of that he is taking a front view. The others appear narrower, and of them he has an oblique view. Hence, a surface which presents an oblique view appears more narrow than it really is, or it is foreshortened. He will also discover that the parallel edges, which bound the upper and right surfaces, appear to incline upward and toward one common point. Hence, lines below the eye appear to incline upward, and parallel receding lines appear to approach each other. This principle is clearly illustrated by the rails of a railway track on an air line.

15. Perspective Plane.—A pane of glass placed before the object, and upon which can be traced its apparent form; will often prove of great value, enabling the learner to perceive the apparent form as it should be represented on the perspective plane, when nothing

else could give the idea correctly. This pane of glass may be said to represent the perspective plane. The student has now mastered some of the most important principles that enter into the representation of objects bounded by straight lines. Though he understands the principles, and has traced the outline of the apparent form upon the glass, he has not yet a clear conception of it, nor a thorough understanding of the method of picturing the appearance of the object. To give him a complete ideal, he must now *see a perfect picture of the object*. This is indispensable. It is always preferable in the early part of the course to use both object and picture. But if either must be dispensed with, let it be the object, as the most difficult part in drawing is to *perceive the apparent form* on the perspective plane. As the pupil becomes more familiar with the laws of nature and art, the pictures should gradually be excluded and his attention given entirely to the objects.

During the entire course, no part of the picture should be drawn unless the pupils can give a reason why it should be drawn in that manner.

It is well to require every exercise to be reproduced from memory, and drawn on different scales.

The pupils should be encouraged to make copies of objects at home, and bring them to school for inspection and criticism.

Only in rare instances should the use of straight edges or measurements be allowed.

PERSPECTIVE DRAWING.

SUMMARY OF PRINCIPLES.

The subjoined statement of principles will be found useful in teaching perspective drawing.

16. "Straight-line Objects."—The perspective of an object is a *representation of its appearance*.

Linear perspective is that branch of drawing, which treats of the effect produced upon the appearance of an object by *position* and *distance*.

The *ground plane* is the plane upon which the object rests. It is always horizontal.

The *perspective plane* is an imaginary transparent plane between the observer and the object. It is perpendicular to the ground plane, and is represented by the surface upon which the picture is drawn, called the picture plane.

The base or *ground line* is formed by the intersection of the ground and perspective planes.

The *horizontal line* is the line that represents the horizon, the latter being always on a level with the eye.

The *point of view* is the point where the eye is supposed to be placed when viewing the object.

The *center of view* is that point in the picture plane which is directly opposite the eye.

Vanishing points are points in a picture toward which all lines converge that in the object are parallel with each other.

An object is in *parallel perspective* when one of its sides is parallel with the perspective plane.

An object is in *oblique perspective* when none of its sides are parallel with the perspective plane.

When *picturing an object*, we are to consider its form and the view which it presents.

An object has two forms, the *real* and *apparent*. The *apparent form* is that which we see and which is represented by its perspective.

An object must present *two* of *four* different views: viz., *near*, *distant*, *front*, and *oblique*.

Near objects appear *larger* than distant ones. *Near lines* appear *longer* than those at a distance.

A surface presents a *front view* when all the corresponding points are equally distant from the eye.

When a surface presents a front view, it appears to be of its *actual form*.

When a line presents a front view, it appears to be of its *actual length*.

A surface presents an *oblique view*, when its corresponding points are not equally distant from the eye.

Surfaces and lines seen obliquely are *foreshortened*, and the more oblique, the more foreshortened they appear.

Parallel receding lines, appear to *approach* each other as they *recede*, and if sufficiently prolonged they appear to meet.

A *horizontal receding line*, if *above the eye*, appears to incline downward; if *below the eye*, it appears to incline upward; if to the *right*, it appears to incline to the *left*; if to the *left*, it appears to incline to the *right*; if directly in *front*, on a *level* with the eye, it appears to be a mere dot.

17. Cylindrical Objects.—A cylinder is a circular solid of the same diameter throughout its whole extent.

The *bases* of a cylinder are the circles formed by its extremities.

The *axis* of a cylinder is a line joining the centers of the bases.

When a *circle* presents a *front view*, it still appears to be a circle.

When a circle presents an *oblique view*, it appears to be foreshortened, and the nearest half appears larger than the more distant half.

When a circle is directly *in front of the eye*, and is either horizontal or vertical, it appears to be a *straight line*.

When a circle is to the *left of the eye*, it appears to be an *ellipse* with the more distant part inclined to the right; when to the *right* of the eye, the ellipse seems to incline to the left; when *above*, to incline *downward*; when below, to incline *upward*.

18. Light, Shade and Shadow.—A surface may be in light, shade, or shadow.

When a surface is in *light*, the nearest part is the lightest.

When a surface is in *shade*, the nearest part is the darkest.

When a surface is in *shadow*, the part nearest the object casting the shadow is the *darkest*.

Pictures of wood should usually be shaded lengthwise of the grain.

Horizontal surfaces and shadows should usually be shaded horizontally.

Curved surfaces may be shaded with different lines, according to the curve and direction, of the surface. Sometimes the shade must be given by various lines on the same surface.

The details of an object are the most clearly defined where the light and shade blend.

SUMMARY OF CHAPTERS XVI. AND XVII.

(1) Importance of Drawing; (2) Cultivation of perception and observation; (3) Understanding and memory; (4) Training of the *knowing* and *doing* faculties; (5) Crude suggestions of methods referred to; (6) A radical error exposed; outline of plan proposed; lessons presented; straight lines; simple figures; (7) Combination of simple figures; (8) Direction, length, form; (9) Ideas of form; lessons suggested; (10) Uses of curves, their combinations; (11) Outlines of common objects; leaves of plants; forms in paper and pasteboard; industry and perseverance urged; (12) "Developing lessons," exercise of the faculties; judicious questioning; (13) Advanced lessons; use of solids; thorough mastery of preceding lessons insisted upon; real and apparent forms; perspective; (14) Principles of perspective; (15) Perspective plane, illustrated and defined; use both of objects and pictures; (16) Summary of principles in the perspective of "straight line objects;" the perspective of an object; linear perspective defined; the ground plane; perspective plane; ground line; the horizontal line; point of view; center of view; vanishing points; parallel perspective; oblique perspective; "picturing an object;" real and apparent forms defined; near, distant, front, and oblique views defined; actual form; actual length; an oblique view; foreshortening; parallel receding lines; horizontal receding lines; (17) Cylindrical objects; cylinder defined; bases, axis; circle, front view; circle, oblique view; perspective of the circle in different positions; (18) Light, shade, and shadow; a surface in the light; a surface in the shade; a surface in the shadow; pictures of wood; shading of horizontal surfaces; shading of curved surfaces; blending of light and shade.

WRITING.

The subject of writing in our public schools has for many years occupied a large share of attention, and numerous systems have been published and are being widely distributed throughout the country. A good series of writing books is within reach of every teacher and pupil in the land, at a merely nominal cost. These series, usually accompanied with charts of a larger size, so

thoroughly elucidate the theory and practice of penmanship that no teacher need be destitute of the aids requisite to a thorough and practical exposition of the whole subject. A trifling expenditure will put him in possession of any and all of the different systems, and consequently of all that the best minds devoted to the subject as a specialty, have been able to produce.

It has therefore not been deemed necessary to offer any suggestions upon methods of teaching writing in the Hand-Book. The importance of a good, legible hand-writing is too well appreciated to require any argument.

Writing should be taught from the beginning of the school course. Children that are of sufficient age to learn to read are prepared to learn writing. To this end, slates properly ruled should be provided, and systematic daily lessons should be given in the primary school. The directions for giving the lessons, as well as a graduated course suited to each grade, will be found in several of the published series, and teachers are referred to them for such full information as may be necessary for use.

CHAPTER XVIII.

METHODS IN ARITHMETIC.

GENERAL REMARKS.

1. Importance of abstracts or outlines.—

One great reason for so much poor teaching is, that many instructors have no adequate idea of that which they are to teach, *as a whole*. This is as true of Arithmetic as of any other branch of study. The subject to be taught should be before the mind of the teacher *in its entirety* before any separate part is presented to a class, for its consideration. This should be so, not only that the relation of one part to another, and of each to the whole may be more clearly discerned; but also, that

seeing these relations, the subject may be so divided as to simplicity and time, as to permit the pupil to master it at the least expense of time and labor. For this purpose, nothing is better than an abstract of the subject to be taught—a map, as it were, placing before the mind at a glance all the most prominent points to be considered, in their proper relations to each other and to the whole.

With this idea in view, we here present a general abstract of the subject before us, Arithmetic, which should be carefully studied until thoroughly understood. Not that this particular analysis is to be considered infallible, or the only one possible, but that some idea may be obtained of the manner of mapping out the subject in such a way as to present a bird's eye view of it from the beginning to the end.

2. Abstracts compared to a map of the world.—This outline may be compared to the map of the world. As, from that we, get the general features of land and water, their forms, relative sizes and positions both in respect to one another and to the whole, without many of the minuter features,—rivers, cities, towns, countries, etc., of its several component parts; so in this we see the *great divisions of the subject*, their general character, and their relative importance as regards each other and the whole subject, without observing the numerous subdivisions of each.

In each case the idea obtained is much clearer than if an attempt were made to delineate everything at once. But, as after studying the Map of the World it is necessary to study separate maps of the different divisions in the same manner, so, after this general outline it will be necessary for the teacher to make similar outlines of each distinct subject indicated in the first.

GENERAL OUTLINE OF TOPICS TO BE CONSIDERED
IN ARITHMETIC.

Introduction.—Number Lessons.

I. General idea of number.—

1. Distinguishing the number of objects.
 - a. Indefinitely, as one or more than one.
 - b. Definitely, as one, two, three, four, etc.
2. Counting.
 - a. Concretely.
 - b. Abstractly.

II. Methods of expressing numbers.

1. By Words; as one, two, three, four, etc.
2. By Letters; as I, II, III, IV., etc.
3. By Figures; as 1, 2, 3, 4, etc.

III. Combining Numbers.—

1. By Addition.
2. By Multiplication.

IV. Separating Numbers.

1. By Subtraction.
2. By Division.

NOTES—1. In the preceding lessons, objects should be freely used until the class can count readily, ten, twenty, and even one hundred. And they should be referred to throughout the course, as helps in solving problems and to correct mistakes.

2. No text-book should be used by the class at first, but toward the close of the course, a primary book might be introduced at the discretion of the teacher, although even then unnecessary.

3. After completing this course, the pupils should be able to count one hundred, or even a greater number;

to perform simple additions, subtractions; multiplications, and divisions, mentally; to recognize the signs indicating these operations, and to use them properly; and to perform simple problems upon the slate or black board, in which there is no "carrying," as it is sometimes called.

4. Much reasoning should not be required of the pupils during this course. The aim should be to make them ready to see how to do, and quick in obtaining results.

CHAPTER XIX.

PRIMARY ARITHMETIC.

I. Preliminary Definitions.

1. *Unit.*
2. *Number.*

II. Notation.

1. *Defined.*
2. *Roman*—defined and uses given.
3. *Arabic*—defined and uses given.

III. Arabic Notation.

1. *Notation of integers.*
 - (a) Classification of units as units of the first order, or ones; as units of the second order, or tens; as units of the third order, or hundreds, etc.
 - (b) Characters employed to represent numbers.
 - (c) Combination of characters used to represent a combination of the different orders.
 - (d) Law of increase and of decrease in the value of these orders.

2. *Notation of Decimals.*

(a) Classification of units as tenths, hundredths, thousandths, etc.

(b) Law of increase and of decrease in the value of the decimal orders.

(c) Manner of representing the decimal orders,—use of the decimal point.

3. *Exercises in writing and reading numbers.*

(a) Integers.

(b) Decimals.

(c) Integers and decimals combined.

IV. **Combining Numbers.**

1. *Addition of integers and decimals.*

2. *Multiplication of integers and decimals.*

V. **Separating Numbers.**

1. *Subtraction of integers and decimals.*

2. *Division of integers and decimals.*

VI. Practical problems, both mental and written, combining two or more of the preceding operations.

VII. Multiplication and division of decimals.

VIII. Further applications of the fundamental rules.

1. *United States Money.*

2. *Compound Numbers.*

3. *Fractions.*

4. *Simple examples in Simple Interest.*

NOTES.—1. At the beginning of this course also, a text-book is superfluous; but if insisted upon, each lesson in the book should be preceded by an oral lesson, that the pupils may obtain ideas and not merely words.

2. Only such definitions should be taught as are

absolutely necessary. These should be made as simple as possible, and amply illustrated by both teacher and pupils. Until a pupil can illustrate a definition, he does not clearly understand it.

3. The most important idea to be gained at the outset is that of a *unit*, as it is the basis of all arithmetical calculations. The pupils must have a clear idea that *units may differ in value and size—that one of anything is a unit whether large or small, simple or compounded of other units smaller than itself*. Numerous examples must be given. One dollar is a unit, so is one cent; one bushel and one peck; one school, as well as each individual that helps compose the school. In short, whatever is thought of as one whole, without reference to the parts that compose it, is a unit. They are now ready to understand how numbers are built up;—first, of simple “ones” as far as ten; then, that each ten is considered by itself as a whole, and is therefore a unit, to which are added others until a ten of these is obtained; that these ten tens are now regarded as a whole, or a unit, to which other like units are added till again we reach ten. In this way they see what is meant by a *unit of the first order*, of the *second order*, of the *third order*, etc., and understand when they are told that, as each of the nine figures always represents a certain number of units (which may be of different orders), to represent a number composed of these different orders of units each must have its own place in the number;—that, for example, 4 represents four ones, or four tens, or four hundreds, etc., (each of which is a unit) according to its position in a number.

4. *As the Notation of Decimals is based upon the same law as that of integers, they should be taught at the same time.* For this reason they are introduced together in this abstract.

5. The terms used in the different subjects should be learned and defined. *No rules should be learned*, but simple explanations of processes be given by the pupils. *No memorizing of principles should be allowed*. In this course the *foundation of facts is to be laid*, from which, and upon which, may be built up the superstructure of principles and rules in the advanced course. The aim should be to make *quick thinkers and ready workers*. *Accuracy and rapidity should be the watch-words*.

CHAPTER XX.

MORE ADVANCED ARITHMETIC.

REVIEWS.

I. Preliminary definitions.

1. *Unit—defined.*

(a) Integral.

(b) Fractional.

2. *Number—defined; unit of; Classes as to kind of unit;*

(a) Integral, or integers;

(b) Fractional, or fractions and decimals;

Classes as to application.

(a) Concrete.

(b) Abstract.

Classes as to likeness of unit value.

(a) Like numbers.

(b) Unlike numbers.

Classes as to form. (a) simple; (b) compound.

3. *Quantity—defined.*

4. *Arithmetic—defined.*

II. Notation and Numeration.

1. *Laws of the Roman Notation.*
2. *Terms used in the Arabic notation, defined; as figure, cipher, digit, significant figure, simple and local value, decimal, etc.*
3. *Law of Notation.*
4. *Principles of Notation, with the reasons for the same.* (a) Removing the decimal point either toward the right or left. (b) Prefixing or annexing ciphers to integers and to decimals.
5. *To read a number; Notation defined; also, to numerate. Numeration defined.*
6. *Rules for Notation and Numeration, including integers and decimals.* (a) For writing numbers. (b) For reading numbers, (c) For multiplying a number by ten, 100, 1000, etc. (d) For dividing a number by 10, 100, 1000, etc.

III. Addition and Subtraction of Integers and Decimals.

1. *Principles.*
2. *Problems solved and analyzed.*
3. *Proofs.*
4. *Rules deduced.*

IV. Multiplication and Division of Integers and Decimals.

1. *Principles, with the reasons for the same.*
2. *Problems solved and analyzed.*
3. *Proofs.*
4. *Rules based upon analysis and principles.*

V. Difficult Problems involving all the fundamental operations, to be analyzed and proved.

VI. Contractions in Multiplication and Division, with applications, using United States money.

VII. Fractions.

1. *Terms reviewed and defined.*
2. *Principles derived and illustrated.*
3. *Rules based upon these principles to be demonstrated.*
4. *Problems to be analyzed and proved.*

VIII. Compound Numbers reviewed in connection with the Metric System.

IX. Simple Interest thoroughly reviewed, with Compound Interest and Partial Payments.

NEW SUBJECTS CONSIDERED.**I. Factoring.**

1. *Terms defined.* (a) Divisor, factor, prime factors. (b) Prime and composite numbers. (c) Numbers prime to each other.

2. *Principles and rules demonstrated,* and illustrated by examples.

3. *Greatest Common Divisor, and Least Common Multiple.* (a) Terms defined. (b) Different rules demonstrated and illustrated by examples.

II. Percentage and its applications.—Both mental and written problems analyzed and proved.

1. *Profit and Loss.*
2. *Commission and Brokerage.*
3. *Insurance.*
4. *Taxes.*
5. *Customs and Duties.*
6. *Capital and Stock.*
7. *United States Bonds.*

III. Ratio and Proportion.—Terms defined; Simple and Compound Ratio, and Proportion; Principles and Rules deduced; Problems solved.

IV. Analysis of Miscellaneous Problems; both mental and written, involving principles previously learned, testing and developing the reasoning faculty; to be solved by proportion as well as by analysis; pupils encouraged to find the shortest and plainest solutions.

V. Applications of Interest.

1. *Promissory Notes and Drafts.*—Practice in writing the usual business forms; Banking; Discount. Exchange,—Domestic and Foreign; Drafts; Bills of Exchange; Practice in writing them; Practical Problems.

2. *Partnership, Simple; Compound.*

3. *Averaging Accounts.* With one side; with two sides; by products; by interest.

VI. Involution and Evolution.—Algebraic Method first, followed, if desired, by the Geometric.

VII. Alligation.—Medial; Alternate.

VIII. Progressions.—Arithmetical; Geometrical; Rules and Formulæ deduced from Analysis.

NOTES.—1. In this course, theoretical as well as practical arithmetic should receive attention. The reviews should be thorough, gathering up that which has been left unnoticed in the previous course, and combining all into a symmetrical whole. For this purpose, the teacher should encourage the pupils to form abstracts. This can be done by first presenting one for their inspection and pointing out the manner of its formation, afterwards requiring them to form their own as soon as a topic has been completed, and finally to unite these separate topics into one general abstract.

2. Throughout this course, all principles and rules should be demonstrated. Nothing should be allowed to pass, the reason of which is not understood; and rigid analyses of all problems should be strictly adhered to.

3. Pupils should be encouraged *to do their own work*; to form their own analyses, and to prove their work by logic rather than by the answer in the book.

CHAPTER XXI.

ARITHMETIC CONTINUED.

Sketches of Lessons given as illustrations of what should be done in carrying out the preceding abstracts.

I. PRIMARY LESSON.

Notation and Numeration.—Point.—To teach the pupils to read and to write two periods of integers and three orders of decimals.

The teacher first illustrates the different orders of units, as suggested in Note 3, at the close of the Abstract of Primary Arithmetic, and also teaches that some one of the nine figures is used to represent these different orders of units; which one, depending upon the number of units to be represented. Thus, teacher questions and pupils answer. "What does this figure (4) represent?" "It represents four units." "What order of units may it represent?" "It may represent any order of units—four ones, or four tens, or four hundreds."

As the *form* of the figure is always the same, the pupils see that there must be some way of distinguishing *which order* a figure is intended to represent, and are told, or themselves discover, that *it is the place of a figure* in a number that determines its value; that units of the first order, or ones, are represented by a figure in

the first right-hand place; of the second order, or tens, by a figure in the second place toward the left, &c. They now see the necessity for a character to show the absence of any order of units—the cipher.

Upon being questioned by the teacher as to how numbers that are composed of different orders of units, are represented, the pupils answer: "A number composed of different orders of units is represented by combining and repeating some of the nine figures in a horizontal line, using ciphers if necessary." "What does each figure represent?" "It represents a certain number of units." "Upon what does the value of the unit represented depend?" "Its value depends upon the place of the figure in the number."

The teacher now places a number on the black board; as, 563. Upon being questioned, the pupils say, "The figure 3 represents three units of the first order, or three ones," and so on with each other figure in the number. They then read the number; as, "5 hundreds, 6 tens, and 3 ones," or "Five hundred sixty-three." Other numbers are to be read in the same manner, and also written.

The teacher now reviews the composition of the different orders of units; which is given by the pupils as follows: "Each one, or unit of the first order, is a simple unit. Each ten is composed of ones, each hundred is composed of tens and therefore of ones. Ten ones make one ten, ten tens or one hundred ones make one hundred." They may now numerate numbers as ones, tens of ones, hundreds of ones. They then learn that these three orders form a period, and as each is composed of ones, it is called the period of ones. The teacher next presents the fourth order of units in a similar manner, and the pupils learn that it is called units of thousands,

because each is made up of a thousand ones. From this to the next two higher orders is an easy step. The pupils complete the table of Notation as far as now learned. They are then told that these three higher orders taken together form a second period called the period of thousands, and observe for themselves that each period is composed of units, tens, and hundreds, the periods being separated by a comma.

The teacher now drills the class in reading and writing numbers of two periods.

2. Exercises in writing numbers.

1. Write 5 hundreds, 2 tens, of the second period; 3 hundreds, 4 ones, of the first period.

(As soon as an order is omitted, a cipher should be written; and as soon as the second period is complete, a comma should be placed after it. If these directions are observed, the frequent erasures and rewriting so common will be avoided.) Many exercises of this kind should be given till the pupils make no mistakes.

2. Write three hundreds of thousands, two units of thousands, four hundreds of ones, and six tens of ones, etc.

3. Write four hundred sixty-four thousand, twenty-four, etc.

Numerous examples should be given, both for the class to prepare before recitations and for class drill during recitation.

The teacher now calls the pupil's attention to the fact already observed by them, that the different orders of units increase in value from right to left, and decrease in value from left to right; that each lower order is ten times less, or one-tenth as great in value, as the preceding higher order.

Having already become familiar with the idea of

units differing in size and value, they will not be surprised to learn that there are units still less in value than the ones, and will perhaps themselves observe that each must be one-tenth as great in value as a one, which will suggest the name, tenths. At a hint from the teacher they are also ready to tell where a figure intended to represent such units should be placed,—in the first place at the right of the ones. They now see that something is necessary to distinguish tenths from ones, and the use of the period or decimal point is taught. Having compared these orders at the right of ones, with those at the left, and observed that the first order at the left of ones is tens, while the first at the right is tenths; that the second at the left is hundreds, while the second at the right is hundredths, &c., they are prepared to reason by analogy and find the names of the remaining decimal orders.

As each order is learned, the pupils are drilled in reading and writing it, both alone and in connection with other orders.

Questions such as the following are asked and answered: "Which decimal order is hundredths? tenths? thousandths?" &c. "What decimal order is represented by a figure in the third place at the right? in the second place?" &c. "How many decimal places are required to represent thousandths? hundredths?" &c. "How many tenths in five ones?" "How many hundredths in two tenths?" &c. "How many ones in sixty tenths?" "How many hundredths in seventy thousandths?"

II. MORE ADVANCED LESSONS.

POINT.—To derive the rule for multiplying any number by 10, 100, 1000, etc.

The teacher first reviews the class on the following points:

What does each figure in a number represent? Upon what does the value of the unit represented depend? Then continue to question as follows:—

“Since the value of a number depends on the position of its figures, how may its value be changed?” “The value of a number may be changed by changing the position of its figures.” “What point determines the position of the figures?” “The decimal point, &c.” (complete answers required). “How then may the position of the figures be altered without erasing any of them?” “By changing the position of the decimal point.” “How must the position of the figures be changed in order to increase the value of the number?” “They must be placed farther to the left as regards the decimal point.” “Why?” “Because the orders of units increase in value toward the left.” “How shall this change be effected?” “By moving the decimal point toward the right.” “Why?” “Because this has the effect of moving the figures toward the left as regards the decimal point.” “If the decimal point be moved one place to the right, what will be the effect upon the value of the number?” “The number will be ten times as great in value as before.” “How do you know the exact increase?” “Each order toward the left is ten times as great in value as the next lower order, and each figure has been placed one order higher

than before." (Similar questions on two removals, three, etc.)

The pupils are now ready to give the following principle, with the reason for it: Moving the decimal point toward the right increases the value of a number ten times for each order beyond which it is moved:—

Because, the figures are thus moved as many places toward the left, which increases their values according to the Law of Notation: The different orders of units increase in value toward the left in a tenfold ratio. From the preceding principle the following rule is derived:

RULE.—To multiply a number by 10, 100, 1,000, etc. —Move the decimal point as many orders to the right as there are ciphers in the multiplier.

Examples for practice should follow.

NOTE.—The answers given to the preceding questions may be varied in language by each member of the class; in fact they will necessarily be varied, as they are not learned from a text-book, nor from the dictation of the teacher, but are thought out in the mind of each individual pupil. To encourage the original expression of ideas, the summing up after a developing lesson may be left to private study; after which each pupil should produce in writing the Principle, Reason, and Rule, expressed in his own language. He should likewise, without further instruction, be required to think out the remaining principles and rules of Notation, and bring them to the class in writing.

CHAPTER XXII.

SKETCH OF LESSONS IN ADDITION AND MULTIPLICATION.

POINT.—To teach the definitions, and the analysis of examples.

I. Matter.—1. Addition is counting together two or more numbers to find another number equal to all of them combined.

2. The sum is the number found by counting two or more numbers together.

3. Multiplication is uniting two or more equal numbers at once, to find their sum.

4. The multiplicand is any one of the equal numbers to be united.

5. The multiplier is the number that shows how many equal numbers are to be united.

6. The product is the sum found by uniting equal numbers at once.

II. Method—Addition.

1. Pupils having already learned to add in the Number Lessons, the teacher gives them a few mental problems, which they quickly solve. He next gives some that are more difficult, requiring more time.

He then calls attention to the process gone through in their minds before arriving at the result. Pupils remember that they were obliged to count the numbers together, and are told that this counting of numbers together, is called Addition. The teacher now calls their attention to the number obtained, and they compare it with the numbers added. Being asked the pur-

pose of addition, they are ready to answer, "To find another number equal to all the others." The pupils now recite and write the definition as in "1," "Matter."

2. The teacher tells the class the name of the result. Pupils repeat and write the definition as in "2" "Matter."

3. Examples analyzed.—Pupils remember from their number lessons that only like numbers can be added, and how to write numbers for addition. They have now to learn how to add numbers when the sum of a column exceeds nine, and to explain the process.

The teacher writes upon the board some numbers to be added; as—

$$\begin{array}{r} 34.6 \\ 88.9 \\ \underline{79.3} \\ 202.8 \end{array}$$

The pupils add the first column, finding the sum to be 18 tenths. The teacher questions and the pupils answer as follows: "How many of a lower order make one of a next higher?" "Ten of any order make one of the next higher." "How many more than 10 tenths are there in 18 tenths?" "There are 8 tenths more than 10 tenths in 18 tenths." "What is the next higher order?" "Ones is the next higher order." "Then to what are 18 tenths equal?" "18 tenths are equal to 1 one and 8 tenths." (The teacher here writes a figure eight under the column of tenths.) "What kind of units do we add together?" "Units of the same order." "Are there any other units of the same order as the 1 one taken out of the 18 tenths?" "There is a column of ones." "What then shall be done with the 1 one?" "Add it to the column of ones."

Teacher and pupils proceed in the same way until all the columns have been added. Each pupil now explains the process as follows (naming sums but not the different figures added) : 3, 12, 18 tenths. In 18 tenths there are 1 one and 8 tenths. Write a figure 8 under the column of tenths and add the one with the column of ones.

1, 10, 18, 22 ones. In 22 ones there are 2 tens and 2 ones. Write a figure 2 under the column of ones, and add the 2 tens to the column of tens.

2, 9, 17, 20 tens. In 20 tens there are 2 hundreds and no tens. Write a cipher under the column of tens, and a figure 2 at the left of it in hundreds' place. The sum of these numbers is found to be 202.8.

Many examples are given for practice, till the pupils become expert in explaining.

Multiplication.—1. The teacher reviews the class on the multiplication table as learned in the number lessons: as "Two times four are how many?" "Six times eight?" "Seven times nine?" &c. The teacher questions and pupils answer, as follows: "What is done to find two times four?" "Two fours are added together." "To find six times eight?" "Six eights are added together," &c. "If you were required to add four eights and twelve together, how should you proceed?" "Add four and eight and to this sum add twelve." "In adding the four and eight, and afterwards the twelve to the twelve, do you stop to count, or what do you do?" "No, we remember the results." "When I ask you how many three times four are, do you add four to four, and then this result to four, before you can answer, or what do you do?" "No, we add the three fours at once by remembering that the sum is twelve." "Compare the numbers to be added in the last example (Three times four) with those in the preceding (four, eight, twelve.)

What can you say of the value of the numbers in the last?" "They are equal." "What is the result called?" "The sum." They are now told that adding several equal numbers at once to find their sum, is called multiplication. The definition is then repeated and written as in "3," "Matter." 2. The ideas involved in the remaining definitions are then developed in a similar manner and the definitions are repeated and written as in "4," "5," and "6" "Matter."

3. Example explained.—In the Number Lessons the pupils were taught how to solve examples when the multiplier consists of only one figure and no product exceeds nine. They are now to learn to multiply when the multiplier contains more than one order and the products exceed nine. At this point the multiplicand may be a decimal or contain one, but the multiplier must be an integer.

The teacher writes an example on the black board; as—

$$\begin{array}{r} 68.75 \\ 24 \\ \hline \end{array}$$

By questioning draw from the pupils that the multiplier is composed of 2 tens and 4 ones; and that therefore, the product must be 2 tens times the multiplicand and 4 ones times the multiplicand. They know that each figure in the multiplicand must be multiplied, and give the first result as 20 hundredths, which, remembering the process in addition, they are ready to express as 2 tenths and 0 hundredths. Reasoning by analogy they infer that a cipher should be written under hundredths and the 2 tenths added to the product of tenths. They proceed in like manner till the first partial product is complete.

The teacher now by trains of questions draws from the pupils that as the 2 in the multiplier is one order higher than the 4 of the multiplier, the product by 2 must be one order higher than the product by 4, or tens. They then proceed to multiply: 5 hundredths by 2 of the second order is 10 tenths; In 10 tenths there are 1 one and no tenths. Write a cipher under the tenths of the first partial product, and add the 1 one with the next product; and so on till the second partial product is complete, when the two are combined to find the entire product. The entire example should now be explained by one or more of the pupils.

NOTE 1.—After completing the fifth and sixth topics of the abstract, the multiplication and division of decimals are suggested. They should be considered in a very simple way without much abstract reasoning. The following explanation of an example in multiplication may serve as a hint.

EXAMPLE.

$$\begin{array}{r}
 36.24 \\
 1.23 \\
 \hline
 36.24 \\
 7.248 \\
 1.0872 \\
 \hline
 44.5752
 \end{array}$$

Multiplying by 1, the first partial product is 36.24. Next multiply by 2. As this is one order lower than the 1, its product must be one order lower than the product by 1, hence, must be placed one order farther to the right, giving for the second partial product, 7.248. For a like reason the third partial product must be placed one order to the right of the second, and is

1.0872. Adding the partial products, the entire product is 44.5752.

NOTE 2.—The following abstract will indicate what is to be done in these subjects by more advanced classes. The new topics are combined with the old so as to make a complete abstract.

ADDITION. EXAMPLE OF ABSTRACTS.

I. Definitions.

1. *Addition.*
2. *Sum.*

II. Signs.

1. *Of addition +.*
2. *Of equality =.*

III. Principles.

1. *Like numbers.*
2. *Like orders of figures.*

IV. Analysis of examples.

1. *Manner of writing the numbers.* Why?
2. *Place to begin.* Why?
3. *Add each column.*
4. *Conclusion.*

V. Rules.

MULTIPLICATION.

I. Definitions.

1. *Multiplication.*
2. *Multiplicand.*
3. *Multiplier.*
4. *Product.*
5. *Factors.*

II. Principles.

1. *Nature of the multiplicand*—concrete or abstract.
2. *Nature of the multiplier*—always abstract.

3. *Nature of the product*—like the multiplicand.
4. *Order of the factors.*
5. *Multiplying or dividing* the multiplicand.
6. *Multiplying or dividing* the multiplier.

III. Examples analyzed.

1. *When the multiplier is an integer.*
2. *When the multiplier is a decimal.*

IV. Rules—derived from analysis.

Another analysis for multiplying by a decimal.

EXAMPLE.

$$34.27 \times 2.35 = 8053.45 \div 100 = 80.5345.$$

2.35

171.35

1028.1

6854.

8053.45

Multiply first by 235 ones, which gives as a product 8053.45. But as this multiplier is 100 times as great as the true multiplier, 235 hundredths, the product obtained must be 100 times as great as the required product. We therefore divide 8053.45 by 100, which is done by moving the decimal point two orders to the left. Therefore the product is 80.5345.

CHAPTER XXIII.

SKETCHES OF LESSONS IN SUBTRACTION AND DIVISION.

POINT.—*To teach definitions and analyses.*

I. Matter.—1. Subtraction is taking part of a number from the whole of it to find how much remains.

2. The minuend is the number from which a part is taken.

3. The subtrahend is the part of the minuend taken away.

4. The remainder is the part of the minuend left after the subtrahend has been taken away.

5. Division is the process of finding how many equal numbers, one of which is given, there are in another, or it is finding one of the equal numbers when their number is given.

6. It may be found by successive subtractions, but division is the shorter process.

7. The terms defined as usual.

II. Method.—A method similar to the one in the preceding sketch should be pursued. The lessons should be oral, the questions asked in such a way as to bring out from the pupils the expression of the ideas embodied in the definitions. At the close of each recitation the definitions should be written by each member of the class and illustrated by examples.

III. Explanation of examples.

1. Subtraction. The teacher writes an example on the board, and leads the pupils by questions to perform the work. Then each pupil explains an example as, From 326.5 subtract 219.7. "Write the subtrahend under the minuend with figures of the same order in the same column. Commence at the right to subtract. As 7 tenths cannot be taken from 5 tenths, the 5 tenths must be increased. Take 1 one from 6 ones, leaving 5 ones. 1 one is equal to 10 tenths, which, added to 5 tenths, make 15 tenths. 7 tenths taken from 15 tenths leave 8 tenths. Write a figure 8 under tenths' column." And so on with each column.

2. Division.

Examples in Short Division should be explained first, each step in the division being taken alone by the pupils

—writing the quotient, reducing the remainder, and adding it to the next lower order, &c.

Long Division should be explained in the same manner as Short Division, the only difference between them being that the products and remainders are written in the one and not in the other.

NOTE 1.—Division of Decimals may be omitted till the advanced course, if thought advisable, although it may be taught in a very simple manner here.

First show that the dividend is always the product of the divisor and quotient. It must therefore contain as many decimal places as the sum of those in the other two terms. Whence it follows that the quotient must contain as many as those in the dividend less those in the divisor. Examples may now be solved and explained by dividing as if the divisor were an integer, and then following the rule for the number of decimal places.

NOTE 2.—Abstracts of these subjects as they may be considered in advanced Arithmetic.

SUBTRACTION.

I. Definitions.

1. *Subtraction.*
2. *Minuend.*
3. *Subtrahend.*
4. *Remainder.*

II. Sign — minus.

III. Principles.

1. *Like numbers.*
2. *Like orders of figures.*

IV. Examples explained.

(Same steps as in addition.)

V. Proof.

VI. Rule derived from analysis.

DIVISION.

I. Definitions.

1. *Division.* (a) How many times one number is contained in another. (b) Finding one of its equal parts.

2. *Dividend.*

3. *Division.*

4. *Quotient.*

5. *Remainder.*

II. Signs. \div $\frac{\text{Dividend}}{\text{Divisor}}$

III. Principles.

1. *Nature of the terms in the first division (a).*
2. *Nature of the terms in the second division (b).*
3. *Divisor and quotient as factors.*
4. *Multiplying or dividing the dividend.*
5. *Multiplying the divisor.*
6. *Dividing the divisor.*
7. *Multiplying or dividing both dividend and divisor by the same number.*

IV. Examples analyzed.

1. *When the divisor is an integer.*
2. *When the divisor is a decimal or a mixed number.*

V. Rules derived from the analyses.

Another explanation of an example in division of decimals.

$$\text{EXAMPLE.} \quad \frac{12 \overline{)268.032} \div 1.2 = 22.336 \times 10 = 223.36}{22.336}$$

First dividing by 12 ones the quotient is 22.336. But as the divisor used, 12 ones is ten times as great as the given divisor 12 tenths, this quotient must be ten times as small as the required quotient. Therefore we multiply 22.336 by 10, by moving the decimal point one order to the right, and the quotient is 223.36.

CHAPTER XXIV.

FRACTIONS.

Abstract of points to be considered in Primary Arithmetic.

I. Definitions.

1. *Fractions.*
2. *Numerator.*
3. *Denominator.*

II. Classes of Fractions.

1. *Proper.*
2. *Improper.*
3. *Mixed number.*

III. Reduction.

1. *Integers and mixed numbers to improper fractions.*
2. *Improper fractions to integers or mixed numbers.*
3. *Fractions to their lowest terms.* (a) Lowest terms defined. (b) Principle upon which the operation is based.
4. *Review, with numerous examples.*

IV. Addition.

1. *Fractions of like denominators.*
2. *Fractions of unlike denominators.*
(a) Reduction of fractions to a common denominator.

V. Subtraction.

1. *Fractions of like denominators.*
2. *Fractions of unlike denominators.*

VI. Examples combining and illustrating Addition and Subtraction.

VII. Multiplication.

1. *A fraction by an integer.* (a) By multiplying the numerator. (b) By dividing the denominator.
2. *An integer by a fraction.*
3. *Review, with numerous examples.*

VIII. Problems combining Addition, Subtraction, and Multiplication.**IX. Division.**

1. *A fraction by an integer.* (a) Dividing the numerator. (b) By multiplying the denominator.
2. *Multiplying a fraction by a fraction.*
3. *Cancellation.*
4. *Dividing an integer by a fraction.*
5. *Dividing a fraction by a fraction.*
6. *Review, with numerous examples.*

X. Miscellaneous problems reviewing the preceding operations.**METHODS IN FRACTIONS.**

I. Definition—1. The definitions should be simple, but correct. For the sake of simplicity do not say a fraction is a "broken number," nor a part of a number.

2. **Numerator.** In defining the numerator give the meaning of the word—numberer—hence the figure that numbers the parts of the fraction.

3. **Denominator.** In defining denominator give the meaning of the word—namer—hence the part that names the fraction. Impress upon the minds of the class that it shows into how many parts the unit has been divided and the size of the parts; that the more parts a thing is divided into, the smaller each part will be—hence the greater the number used as the denominator the less the size of each part represented, and *vice versa*.

NOTE.—The ideas in these definitions should be de-

veloped by the use of objects, and all operations in fractions should be illustrated by them.

II. Classes.—1 and 2. Several proper and improper fractions compared with unity, and their names and definitions derived from the comparison.

3. Mixed Numbers. Their nature as a combination of integer and fraction.

III. Reduction.—1 and 2. Whole or mixed numbers to improper fractions, and *vice versa*. These two cases are easily understood. Examples should be explained; as in $2\frac{2}{3}$ how many 3ds? Since in 1 there are $\frac{3}{3}$ in $2\frac{2}{3}$ there are 2 times $\frac{3}{3} + \frac{2}{3}$, which is $\frac{8}{3}$.

In $1\frac{2}{3}$ how many ones? Since in $\frac{3}{3}$ there is 1, in $1\frac{2}{3}$ there are as many ones as $\frac{5}{3}$ are contained times in $1\frac{2}{3}$, which are $2\frac{2}{3}$ times.

3. Lowest terms.—To show the manner of reducing fractions to lowest terms, refer to the fact that the numerator shows the number of parts, while the denominator shows their size. Show that if the number of parts is made less, and the size of the parts just as much greater, the fraction will be of the same value as before. To change the number of parts the numerator must be changed, and to lessen the number, the numerator must be made of less value. To change the size of the parts, the denominator must be changed, and to make them greater the denominator must be made smaller, decreased in value. Therefore, dividing both numerator and denominator, &c. From this the method of procedure in reducing to lowest terms is plain.

Illustrate by giving part of the class a number of equal parts of an apple, and the rest a less number but each of greater size in proportion; as, part of the class each receives $\frac{2}{3}$, another part $\frac{1}{3}$, and the rest $\frac{1}{2}$. By comparison they see that each has the same part of an apple as the other.

IV. Addition.—1. Denominators alike. That the denominator shows the name of the parts and the numerator their number, is the significant fact here. Hence, to find how many there are in two or more of the same name, taken together, add the several numbers indicating how many there are of each, that is, add the numerators. As the sum is of the same kind as the numbers added, write the denominator under the sum of the numerators.

2. Denominators unlike. The pupils have already learned that unlike numbers can not be added without change; as, 4 books and 2 pencils must be added together as 4 objects and 2 objects, making 6 objects. Also, in subtraction, before adding 1 of a higher denomination to a number of a lower, it had to be reduced to that lower. So these fractional numbers must be made alike before they can be added.

To do this the pupils must learn how to reduce fractions to a common denominator. Refer to the process of reducing to lowest terms and the principles involved. Show that if, instead of dividing the numerator, it were multiplied, the number of parts would be increased, and to preserve the value of the fraction their size must be decreased just as much; hence, the denominator must be made greater by multiplying it by the same number. Here the principle should be stated and illustrated: To make fractions alike, multiply the terms of each by a number that will make the denominators alike.

In many cases the new denominator can be determined by inspection; if not, multiply the given denominators together and use the product for the new denominator.

V. Subtraction.—Will be understood by comparing it with Addition.

VI. Multiplication.—1. To multiply a fraction

by an integer, (a) By multiplying the numerator. Show that a fraction may be changed in value in two ways, by changing the number of parts or by changing their size. If the number of parts be increased, and each be of the same size as before, the value of the fraction must have been increased. Hence, a fraction may be multiplied by multiplying the numerator. (b) By multiplying the denominator. If each part be increased in size and there be just as many parts as before, the fraction will be increased in value. Hence, a fraction is also multiplied by dividing its denominator.

2. To multiply an integer by a fraction. Refer to the fact that a change in the order of the factors does not change the product. Therefore, change the order of the factors and multiply as before.

VII. Division.—1. To divide a fraction by an integer. Developed in a manner similar to the same case in Multiplication. 2. To multiply a fraction by a fraction. Teach that when numbers are written in the form of a fraction division is indicated; as, $\frac{2}{3} = 2 \div 3$. Hence $\frac{4}{3} \times \frac{2}{3} = \frac{4}{3} \times 2 \div 3$.

Show by using integers that the effect on the product is the same whether it be divided, or the multiplier be divided before multiplying. So in this case we may multiply first and then divide the product, giving a result of $\frac{8}{9}$. Hence the Rule. 3. Cancellation. Teach by referring to the Principle; Dividing both terms by the same number, &c.

4. To divide an integer by a fraction. Show that to find how many times one number is contained in another, the numbers must be alike. So in fractions, if they are alike, the process is the same as finding how many times a certain number of dollars is contained in another number of dollars; as, 4 fifths are contained in 8 fifths 2 times, $\frac{8}{5} \div \frac{4}{5} = 2$.

Therefore reduce the integer to the same denomination as the divisor, and divide the numerator of the dividend by the numerator of the divisor.

5. Fraction by a fraction. Based on the same principle as the preceding. Hence, reduce them to a common denominator and divide the numerator of the dividend by the numerator of the divisor.

VIII. Problems.—These should be simple but practical, mental and written. Continue them until the pupils become quite expert, but not long enough to weary them. They can be used in the problems in the remaining subjects, so that the pupil will become ready in their application.

Abstract of Fractions as prepared for more advanced pupils.

I. Definitions.

1. *Fraction.* (a) Unit of. (b) Fractional unit.
2. *Terms.* (a) Numerator. (b) Denominator.

II. Fraction. Indicates division—value of.

III. A Fraction analyzed.

IV. Classes of Fractions.

1. *As to value when compared with unity.* (a) Proper.
(b) Improper.
2. *As to form.* (a) Mixed number. (b) Simple.
(c) Compound. (d) Complex.

V. Principles and Rules derived from the analyses of examples.

1. *Prin. Multiplying the numerator.*
2. *Prin. Dividing the denominator.* (a) Rule for multiplying a fraction by an integer.
3. *Prin. Dividing the numerator.*
4. *Prin. Multiplying the denominator.* (b) Rule for dividing a fraction by an integer.

5. *Prin. Multiplying both terms by same number.*
(c) Rule for reducing a fraction to higher terms.
6. *Prin. Dividing both terms by the same number.*
(d) Rule for reducing a fraction to lower terms.

VI. Reduction—defined.

1. *To reduce a whole or mixed number to an improper fraction.* (a) Example analyzed. (b) Based upon Principle 5. (c) Rule.

2. *Improper fractions to whole or mixed numbers.* (a) Example analyzed. (b) Based on Principle 6. (c) Rule.

3. *Fractions to lowest terms—defined.* (a) Example analyzed. (b) Based on Principle 6. (c) Rule.

4. *To higher terms.* (a) Example analyzed. (b) Based on Principle 5. (c) Rule.

5. *Compound Fractions to Simple.* (a) Example analyzed. (b) Based on Principles 1 and 4, or 1 and 3. (c) Rule.

6. *Fractions to Decimals.* (a) Example analyzed. (b) Based on Principle 6. (c) Rule.

7. *Decimals to Fractions.* (Same as lowest terms.)

8. *Fractions to Common and Least Common Denominator.*

VII. Addition.

1. *Fractions of like denominators.*
2. *Fractions of unlike denominators.*
3. *Mixed Numbers.*
4. *Rule.*

VIII. Subtraction.

1. *Fractions of like denominators.*
2. *Fractions of unlike denominators.*
3. *Mixed Numbers.*
4. *Rule.*

IX. Multiplication.

1. *A fraction by an integer.* (a) By multiplying the numerator. (b) By dividing the denominator. (c) Refer to Principles 1 and 2 for deriving the rule.

2. *An integer by a fraction.* (a) Examples analyzed. (b) Rule derived from analysis.

3. *A fraction by a fraction.* (a) Example analyzed. (b) Rule derived from analysis.

4. *One or each factor a mixed number.*

X. Division.

1. *A fraction by an integer.* (a) Dividing the numerator. (b) Multiplying the denominator. (c) Refer to Principles 3 and 4 for deriving the rule.

2. *An integer by a fraction.* (a) Examples analyzed. (b) Rule derived from analysis.

3. *A fraction by a fraction.* (a) Examples analyzed. (b) Rules derived from analyses.

4. *Dividend, or divisor, or each a mixed number.*

5. *Complex fractions reduced to simple ones.*

CHAPTER XXV.**ILLUSTRATION OF SEVERAL POINTS IN THE LAST ABSTRACT.**

I. Analysis of a Fraction. Analyze the fraction $\frac{6}{7}$.

$\frac{6}{7}$ is a fraction because it expresses 6 of the 7 equal parts of a unit. 1 is the unit of the fraction, or the unit divided to form the fraction. $\frac{1}{7}$ is the fractional unit, or 1 of the equal parts of the unit divided. 7 is the denominator, it names the fraction. It shows that the unit

is divided into 7 equal parts and the size of each part. It is written below a short horizontal line. 6 is the numerator, it numbers the parts taken to form the fraction. It is written above the line. 6 and 7 are the terms of the fraction, and its value is $6 \div 7$.

II. Derivation of the Second Principle. It is required to derive the second principle of fractions. To do this I analyze the following example: If the denominator of the fraction $\frac{7}{16}$ be divided by 2, what will be the effect on the value of the fraction? Dividing the denominator by 2, the resulting fraction is $\frac{7}{8}$. $\frac{7}{8}$ contains the same number of fractional units as $\frac{7}{16}$, but each unit is twice as great. Therefore the fraction has been multiplied by 2. Hence the principle: Dividing the denominator of a fraction by an integer multiplies the value of the fraction by the same number, because it increases the size of the fractional units, while their number remains the same.

III. To reduce a Compound Fraction to a Simple one. Reduce $\frac{2}{3}$ of $\frac{4}{5}$ to a simple fraction. First find $\frac{1}{3}$ of $\frac{4}{5}$.

Since to find $\frac{1}{3}$ of a number we divide the number by 3, $\frac{1}{3}$ of $\frac{4}{5} = \frac{4}{5} \div 3 = \frac{4}{15}$ (Prin. 4). Since $\frac{1}{3}$ of $\frac{4}{5}$ is $\frac{4}{15}$, $\frac{2}{3}$ of $\frac{4}{5}$ is 2 times $\frac{4}{15} = \frac{8}{15}$ (Prin. 1).

We observe that the numerator of the product is the product of the numerator of the given fractions; and the denominator of the product is the product of the denominator. Hence the rule.

IV. To derive a Rule for multiplying a Fraction by a Fraction.

To do this I analyze the following example: 1. Multiply $\frac{3}{4}$ by $\frac{4}{5}$, $\frac{3}{4} \times \frac{4}{5} = \frac{3}{5}$. But as the multiplier used is 5 times as large as the given multiplier, the product obtained must be 5 times as large as the required pro-

duct. I therefore divide $\frac{3}{5}$ by 5, which gives for a result $\frac{3}{25}$. Therefore $\frac{3}{5} \times \frac{4}{5} = \frac{12}{25}$. Hence the rule. Multiply the multiplicand by the numerator of the multiplier and divide the product by the denominator. Or, as according to the first part of this rule, the numerators of the factors are multiplied together, and by the last part the denominators, we have the more general rule. Multiply the numerators of the fractions together for the numerator of the product, and the denominators together for its denominator.

V. To divide a Fraction by a Fraction.—This rule may be derived in a manner similar to the preceding, by dividing first by the numerator of the divisor, or first by the fractional unit of the divisor. But as in every division of a fraction by a fraction by inverting the divisor, the fractions are really reduced to a common denominator, the latter method would seem to be preferable.

PERCENTAGE.

ABSTRACT.

I. Terms defined.

1. *Per cent*—how expressed.
2. *Base*.
3. *Rate per cent*.
4. *Percentage*.
5. *Amount*.
6. *Difference*.

II. Cases.

1. *To find the Percentage, Base and Rate being given.*
 - (a) Analysis of examples. (b) Formula: $B \div R = P$.
 - (c) Rule.
2. *To find the Base, Percentage and Rate being given.*

- (a) Analysis of examples. (b) Formula: $P \div R = B$.
 (c) Rule.

3. *To find the Rate, Percentage and Base given.*

- (a) Examples analyzed. (b) Formula: $P \div B = R$. (c)
 Rule.

4. *To find the Base, Amount and Rate being given.*

- (a) Analysis of examples. (b) Formula: $a \div (1 + R) = B$.
 (c) Rule.

5. *To find the Base, Difference and Rate being given.*

- (a) Examples analyzed. (b) Formula: $D \div 1 - R = B$.
 (c) Rule.

METHODS.

I. Definitions.—The pupils should learn the definitions from the text-book. At the recitation the teacher should test their knowledge of the subject by other means than by merely asking questions; such as, What is per cent.? What is the base? &c., and receiving as answers the definitions as previously learned.

1. Per cent. The first thing to be done is to clearly impress upon the class that 1 per cent. means .01, 3 per cent. .03, &c. In short, that any per cent. of a number is so many hundredths of it.

To do this let the class be sent to the board to write from dictation.

1. Teacher dictates the numbers as per cents. Pupils write as dictated, using the sign %, and then write the equivalent of the given number in hundredths; as,

$$\begin{aligned} 6\% &= .06 \\ 25\% &= .25 \\ \frac{1}{4}\% &= .00\frac{1}{4} = .0025 \\ 2\frac{1}{2}\% &= .02\frac{1}{2} = .025 \\ 225\% &= 2.25 \end{aligned}$$

This form of exercise to be continued until the majority of the class make no mistakes.

2. Teacher dictates the numbers as hundredths, which are written by the pupils as dictated, followed by their equivalents as the sign %; as,

$$\begin{aligned} .03 &= 3\% \\ .00\frac{1}{2} &= \frac{1}{2}\% \\ .002 &= \frac{1}{5}\% \\ 2.45 &= 245\% \\ .20 &= 20\% \\ .6 &= 60\% \end{aligned}$$

3. The Per cents to be written as decimals and as common fractions; as,

$$\begin{aligned} 25\% &= .25 = \frac{25}{100} = \frac{1}{4} \\ 20\% &= .20 = \frac{20}{100} = \frac{1}{5} \\ 33\frac{1}{3}\% &= .33\frac{1}{3} = \frac{33\frac{1}{3}}{100} = \frac{1}{3} \\ 12\frac{1}{2}\% &= .12\frac{1}{2} = \frac{12\frac{1}{2}}{100} = \frac{1}{8} \end{aligned}$$

4. Examples dictated to be solved mentally. What is 6% of 12 bushels? $6\% = .06$, and $.06$ of 12 bushels = 72 bushels. What is 8% of 90? $8\% = .08$, and $.08$ of 90 = 7.2. What is $12\frac{1}{2}\%$ of 64? $12\frac{1}{2}\% = 12\frac{1}{2}$, or $\frac{1}{8}$, and $\frac{1}{8}$ of 64 = 8. What is $33\frac{1}{3}\%$ of 360? $33\frac{1}{3}\% = .33\frac{1}{3}$, or $\frac{1}{3}$, and $\frac{1}{3}$ of 360 is 120.

2. Base, Rate, etc. As these terms are defined, they should be illustrated, both by the one giving the definition, and by other members of the class. Thus: the Base is the number of which a certain number of hundredths are to be taken; as, a man lost 25% of \$40. \$40 is the base. 20% of 300 are how many? 300 is the base.

The Rate Per cent. is the number showing how many hundredths of the base are to be taken; as, a boy had \$1 and gave away 20% of it. 20 is the rate per cent.

The remaining definitions should be illustrated in a

similar manner. The teacher may then give examples, and let the class decide as to the terms used.

The teacher writes on the board: \$5 is 20% of \$25. Pupils recite: \$5 is the percentage, 20 is the rate, \$25 is the base.

A man having \$100 in the bank adds to it 25% as much, and then has \$125. Pupils recite: \$100 is the base, 25 is the rate, and \$125 is the amount.

Continue exercises of the kind until the terms are readily distinguished.

II. The pupils should study a lesson previously assigned in the book, and bring to class upon their slates, problems already solved, ready for explanation. The teacher should be sure always to hear the lesson assigned, otherwise the pupils may become careless in its preparation. Allow wide range in the forms of analysis as long as the language is good and the reasoning logical.

After the pupils have recited what they have prepared, they should be put to the test in various ways; as, Each may be called upon for an original example in the case under discussion, stating which number in it is the Base, etc., and what term is called for by the question.

2. One pupil may give an example for the others to decide as to its terms.

3. The teacher may give the example and the class tell the terms.

4. After completing a case it may be reviewed by requiring the pupils to make an abstract of it. At the recitation each pupil should write his abstract on the board, and several should be called upon to give topical recitations from them, defining terms, analyzing examples, giving formulæ, and deducing rules.

The review of the five cases can be conducted in a

similar manner. Three days, if not more, may be very profitably employed in reviewing.

1. The first day, as suggested above. Also some time during that day the teacher might dictate some problems for the second day, containing applications of all the cases.

NOTE.—Each pupil should understand the benefit he will derive if he gets no help in solving difficult problems. It should be a point of honor to prefer coming to class with unsolved problems, after persistent effort, rather than be assisted by others. The teacher can then determine the exact instruction needed by individual pupils, and the length of time that should be devoted to a subject, in order to make the class thorough in it. Whereas if the pupils come with their work well done, by others, the teacher may suppose them to be independent thinkers, and the very instruction such pupils need they may thus fail to receive.

3. The recitation on the third day may profitably be spent in solving problems that are entirely new to the class, thus testing their judgment and accuracy, also the rapidity with which they can solve problems.

To save time, the teacher may test the judgment of the class as to the proper solution of problems, by making a list beforehand, of such as he considers proper tests, and writing them on the board. The pupils then, after coming to class, may read and explain them without actually working them out.

SUMMARY OF CHAPTERS XVIII. TO XXV. INCLUSIVE.

ARITHMETIC.

(1) Importance of abstracts or outlines ; (2) Abstracts compared to map of the world.

General outline of topics. Number lessons.

I. General idea of number. II. Method of expressing numbers particularized. III. Combining numbers by Addition, by Multiplication. IV. Separating numbers ; by Subtraction, by Division ; Notes on the foregoing outline.

CHAPTER XIX.

PRIMARY ARITHMETIC—OUTLINE.

I. Preliminary definitions—unit ; number.—II. Notation ; Roman ; Arabic. III. Arabic notation ; Notation of integers ; Notation of decimals ; Writing and Reading numbers. IV. Combining numbers ; Addition of integers and decimals ; Multiplication of do. V. Separating numbers, Subtraction of integers and decimals ; -Division of do. VI. Practical problems involving foregoing. VII. Multiplication and division of decimals. VIII. Application of foregoing. Note on the above.

XX.

MORE ADVANCED LESSONS ; REVIEWS.

I. Preliminary definitions. II. Notation and Numeration. III. and IV. Fundamental rules. V. Difficult problems. VI. Contractions, &c. VII. Fractions further considered. VIII. Compound numbers reviewed, &c. IX. Simple interest reviewed, &c.

NEW SUBJECTS CONSIDERED.

I. Factoring, &c. II. Percentage and its applications. III. Ratio and Proportion. IV. Analysis of miscellaneous problems.

V. Applications of Interest. VI. Involution and Evolution. VII. Alligation. VIII. Progressions. Notes.

XXI.

SKETCHES OF LESSONS.

I. Primary lessons given in detail. II. More advanced lessons ; Notes.

XXII.

I. Outline of matter. II. Method—addition, multiplication ; Example of abstracts.

XXIII.

SKETCHES OF LESSONS CONTINUED.

Subtraction and Division—Matter and Method. Outlines presented.

XXIV.

Outlines and Methods. Analyses of fractions.

XXV.

Fractions further considered ; Percentage. Typical methods.

CHAPTER XXVI.

METHODS IN GEOGRAPHY.

1. Improved Methods.—For several years past Geography and geographical teaching have claimed and received much thoughtful attention from educators. There has been a deep-seated dissatisfaction both with the text-books and the methods of teaching in common use. But the active discussion of the subject, and especially the earnest labors of some of our best minds in the production of superior treatises and maps, have led not only to a better knowledge of the subject itself, but to great improvements in methods of teaching it.

Nearly every intelligent person admits the importance of geography properly taught, but still there are many who claim that it is the most dry and uninteresting of our school studies. Such a feeling cannot arise however from a consideration of the nature of the study; for no science can be more fully freighted with interesting and valuable, not to say, fascinating ideas.

2. More Rational Plans.—Being unable to escape the responsibility of teaching this branch, we must boldly assume it, admitting that our plans heretofore have been far short of perfection, and strive to do what we can to render them more rational and efficient.

The query why our methods in Geography have not kept pace with those in other subjects is often presented. Among the many important reasons for this deficiency may be mentioned the following :

First. The science is not so nearly an independent

one as some, but is based upon and draws largely from several others.

Second. The majority of teachers have had neither the time nor opportunity to acquire a comprehensive knowledge of these various sciences, and hence have made little or no effort to prepare a systematic plan for teaching the facts presented in the text-books.

Third. They have frequently felt more inclined to invent a plan whereby they might entirely exclude the subject from the school. This feeling is but natural, since the greater number of those whose circumstances have enabled them to investigate the science have presented, if they have published anything in the form of text-books, only mere theory, or dry, hard facts. The authors of many text-books seem not to have understood that these isolated statements, however valuable to themselves as summaries of their research, are little else than dry bones to the uninitiated.

Again, other subjects have been taught with a view to prepare the pupil for the active duties of life, while Geography, judging from the text-books and methods heretofore employed, has apparently no relation to a practical education. The student is seemingly led to infer that the sum total of geography is "mental discipline," as manifested in the rapid repetition of words minutely descriptive of the location, length, breadth, and height of mountains, and other particulars involving the use of names of difficult pronunciation, with little or no idea of the influence of geographical forms, and of terrestrial phenomena upon man and his movements in the course of history. This neglect to introduce Geography into the course of "practical studies" has had a tendency to keep improved methods of teaching it, also in the background.

3. The study of Geography a means to an important end.—This subject should not be taught as an end so much as a means to an end, and that end not altogether “mental discipline.” It should rather be pursued as a means whereby the student is enabled to understand the history and civilization of mankind. The simple question presented for solution throughout the entire course is, “What relation does this or that country, its physical features, productions, &c., bear to other parts of the world, and above all, to man and his movement in the great march of history?” Hence, although a knowledge of the physical characteristics, or of the productive capacities of a country, is necessary as a basis, the attention should mainly be directed to the question, “What does one region produce that is necessary for the comfort or enjoyment of the people of another, and what are the means, both natural and artificial, of transporting these products?” What are the educational, social, and political conditions of the various countries, the influence of each upon the other and upon the world at large.

4. Study of physical features not to be undervalued.—We would not, in this brief sketch, underrate the careful study of the surface, drainage, climate, and natural resources of the various sections, for a superstructure without a solid foundation is of little value. But let the fact be impressed that a basis, however substantial, without either a superstructure or the power to erect one, or a basis that is out of proportion to the former, is a most undesirable possession. Let these natural features be studied then, not as detached facts but as parts of a harmonious whole, and with reference to their influence on the life of man. Let the knowledge of the drainage of a country be made subservient to a

knowledge of its capabilities for water power and navigation, and the extent to which each is or may be used for the benefit of man. Make each natural feature but the stepping-stone to a better comprehension of the civilization of the world, and the complaint that the study of Geography is uninteresting and unprofitable will no longer be heard.

5. Outline of the Course.—It is not proposed to lay down an extended course in this connection. To present an exhaustive analysis of the subject would require far more space than the limits of a work like the Hand-Book will allow. The formal study of Geography should be preceded by oral lessons that should develop ideas of place, direction, form, size, and distance. This primary course would usually occupy about three years. For details respecting the method of conducting these oral lessons, reference is made to Sheldon's Manual of Elementary Instruction, and works of a similar character.

6. Geography proper. First step, one year.—Lessons in the first grade will include ideas of representation by map drawing. The course may be commenced by drawing an outline of the top of a table, of the school-room, of the school grounds, of a block, of the entire city, town, and finally a map of the county, locating upon each the more prominent objects of interest, so as to impress upon the minds of the pupils the conception that a map is a picture of that which has a real existence.

Throughout this step the teacher should introduce the more important geographical terms, and the manner of representing the different physical features located in the section under consideration. This work should be carefully and thoroughly done. In preparing the maps, constant reference should be made to the localities and

objects represented by it. No term should be introduced until the thing signified is clearly apprehended.

7. Second Step. The State—two years.—In this step the geography of the State should be considered somewhat in detail, together with a general outline course of the world. The map of the State should be drawn and the pupils taken on imaginary journeys to different portions of it, to parts of the United States and of the globe. The true signification of maps has been acquired, and the physical features should now be studied with some reference to their bearing upon man and upon civilization. The agricultural and mining sections should be noted, the water powers and navigable rivers indicated, and the various productions and means of transit described. Throughout this step the teacher has innumerable opportunities to arouse interest in the study, and much of the pleasure and success of his future work will depend upon the thoroughness with which this part is done. (See outline of method.)

8. Third Step—one year.—The lessons in this step should include simple exercises on the globe, in which are developed ideas of the equator, poles, tropics, form of the earth, form of the continents and their comparative sizes, general ideas of climate, and some of the causes of its diversity. Here, also, should be introduced the motions of the earth on its axis and around the sun, and the result of these motions, or the succession of day and night, the change of the seasons, &c. At this point the oceans may be considered in outline. Their forms, relative sizes, and the great currents that facilitate commerce should be studied.

At the close of this course the pupil will have a good knowledge of the geography of his own State, and a sufficient general knowledge of the subject at large to enable

him to help himself in the further prosecution of the study.

But if there be time, and a disposition further to pursue the subject, a careful and systematic examination of each country would not only be of exceeding interest, but it would add greatly to his stock of general information. (See outline of methods.)

9. Syllabus of Topics.—The following series of topics will indicate the general course that may be pursued in the study either of the State or of any given country :

I. Map of the State or country to be accurately drawn.

II. Its position defined.

III. Its boundaries. (a) Mathematical. (b) Physical.

IV. Size.....	{	(a) Actual.	{	Length.
				Breadth.
				Area.
				Elevation.
				Seaboard.
		(b) Comparative.		

V. Its Form.

VI. Its Coast.

VII. Its Surface.....	{	Highlands.
		Plains.

VIII. Inland Waters.	{	Lakes.
		Rivers.

IX. Its Climate.

X. Its Soil.

XI. Its Productions.	{	Vegetable.
		Animals.
		Minerals.

XII. Its Occupations	{	Agriculture.	{	(a) Amount.
		Mining.		
		Fisheries.		
		Manufactures.		
		Commerce.		
		(b) Exports.		
		Imports.		

- XIII. Its Towns.
- XIV. Its People.
- XV. Education.
- XVI. Religion.
- XVII. Government.

10. Mathematical Geography. Syllabus of Topics.—This syllabus of topics in mathematical geography will be serviceable in the third step.

- I. The subject defined.
- II. Form of the Earth.
- III. Proofs of Form.
- IV. Size. { Comparative.
Actual.
- V. Latitude and Longitude.

- | | | | |
|-------------------------------|---|----------|---|
| VI. Motions of the Earth..... | { | Diurnal. | { Direction and rate.
Proofs.
Results. |
| | | Annual. | { Direction and rate.
Inclination of axis.
Sun's declination.
Results. |

VII. Change of Seasons explained and copiously illustrated.

11. Brief Outline of Methods—First Step.—Instruction in the first grade must be presented mainly in the form of oral lessons, but the pupils should be required to collect and bring to the recitation all the information they can obtain on the various subjects. They should be taught where and how to seek for the desired information, and should be encouraged to diligence in obtaining it.

12. Second and Third Steps.—In the second and third grades, when the teacher selects a topic for a lesson, he should also present an abstract of it, applicable to the locality under consideration. Suppose the climate

of North America to be the subject of the lesson. An abstract similar to that which follows should be furnished by the teacher, and each pupil required to collect, arrange, and write the subject matter under the proper headings.

ABSTRACT.

Temperature.	Northern, or cold region.	Coast.	Eastern. Central. Western. Northern. Southern.
	Middle, or temperate region.	Interior. Northern. Temperate.	
	Southern, or warm region.	Coast and Islands. Highlands.	

It would be well to require each pupil to keep a note book, in which the topics and the subject matter of each should be carefully and systematically arranged under the supervision of the teacher. The labor and study necessary in the compilation of the matter under these abstracts will be very useful and important to the pupils, and the books will be exceedingly valuable for reference in reviews.

SUMMARY OF CHAPTER XXVI.

GEOGRAPHY.

(1) Improved methods; old methods unsatisfactory; when properly studied, an interesting science; (2) More rational plans; Geography a dependent science; (3) The study of Geography a means to an important end; a knowledge of the earth, its climate and productions in their relations to mankind; (4) Study of physical features not to be undervalued; to be considered as parts of a harmonious whole; (5) Outlines of course, an exhaustive analysis not attempted; study to be preceded by oral lessons; (6) Geography proper—first step, one year, first grade lessons include representations by map drawing; practical suggestions; (7) Second step—the State, two years; (8) Third step, one year—use of globe; mathematical geography; (9) A syllabus of topics presented; (10) Syllabus of topics in mathematical geography; (11) Brief outline of methods; abstracts.

CHAPTER XXVII.

METHODS IN GRAMMAR.

GENERAL OUTLINE OF THE COURSE.

I. Introduction—Language lessons.

1. *The Sentence*: Its definition developed; Its principal parts named; Classification as to use.
2. *Capital letters and their uses.*
3. *Simple exercises in Punctuation.*
4. *Simple exercises in Composition.*

II. Elementary Grammar.

1. *The sentence defined.* (a) Simple sentences; Their elements; Analysis, naming the elements and their uses. (b) Compound sentences; Analysis. (c) Complex sentences; Analysis.
2. *Parts of speech defined*; Their uses in a sentence; Analysis continued.
3. *More advanced exercises in written composition.*

III. Advanced Grammar.

The term grammar defined; Its principal divisions; Orthography; Etymology; Syntax; Prosody;—Each considered separately and in order.

NOTES ON LANGUAGE LESSONS.

1. Time of introducing lessons.

Formal lessons in language should not be given before the fourth school year, and in some cases perhaps, not until a still later period. The teacher should exercise a wise discretion in respect to this matter. But from the child's entrance into the school, it should be the teacher's constant care to lead his pupils to form cor-

rect habits in the use of language. That this may be accomplished the teacher must himself at all times speak accurately; he must rectify all errors, both in the pronunciation of words and the construction of sentences, that are committed by his pupils, himself giving the correct expression when necessary, to be repeated by the learners. Every recitation in the school should be a practical language lesson, habituating the pupils to speak with purity, propriety, and precision, and requiring them to give their answers in complete sentences whenever it is possible.

2. Use of words, &c.—Every new word should be spelled, and its meaning illustrated by its proper use in sentences orally expressed.

After the pupils have learned to write, the Reading and Spelling lessons should be carefully written on their slates. They may also practice writing simple sentences, using capitals and periods in a proper manner.

3. Object of Language Lessons.—The object of the course of language lessons is to impart some formal instruction upon the subject, with special reference to written composition, that the children may early form the habit of expressing their thoughts in writing, using correct and pleasing expressions, and, at the same time, learning the application of the more common marks of punctuation. No technical terms, except such as may be absolutely necessary, should be introduced into this course.

SYLLABUS OF LANGUAGE LESSONS.

I. Sentences considered.

1. The sentence defined.

2. Parts of the sentence ; (a) First part, representing object spoken of. (b) The second part, representing what is said of the object.

3. *Kinds of Sentences.* (a) The telling sentence; Use of capital letter and period. (b) The asking sentence; Interrogation point. (c) Commanding sentence; Period. (d) Exclaiming sentence; Exclamation point.

4. Exercises in composing and writing these different kinds of sentences.

II. Other uses of Capital Letters.

1. *The words O and I.*

2. *Names of the Creator and of Persons.*

3. *Names of days, months, and of particular days of the year.*

4. *Names of cities, towns, counties, states, and countries.*

5. *Names of streams and bodies of water.*

III. Other uses of Punctuation Marks.

1. *Comma and Semicolon.* (a) Words used to introduce examples.

2. *Apostrophe.* (a) To denote possession. (b) To denote the omission of a letter.

3. *Use of the Period.* (a) Abbreviations. (b) Initial letters. (c) Numeral letters and figures.

4. *Use of the Comma.* (a) Parts of a couplet when "and" is omitted. (b) Parts of a series. (c) Word denoting person or thing spoken to.

5. *Use of the Hyphen.* (a) Parts of a compound word. (b) After an unfinished word at the end of a line.

6. *Use of quotation marks.* (a) Direct. (b) Indirect. (c) Continuous. (d) Interrupted.

IV. Exercises in Composition.

1. *Description of inanimate objects, their parts, qualities, and uses.*

2. *Description of animals.*

3. *Description of persons.*

4. *Description of pictures.*

5. *Description of games or plays.*
6. *Description of places.*
7. *Description of journeys.*
8. *Letter writing.*

METHODS FOR LANGUAGE LESSONS.

General Remarks.—The lessons should be oral and developing in their character. The subject matter of each lesson should be reproduced in writing by the pupils, and subjected to the criticisms of the teacher. The children must be directed quite minutely respecting the work to be done, otherwise the sentences may be too difficult for them to understand and punctuate.

2. Sentences defined.—Awaken thought in the minds of the pupils respecting some object, as a *tree*. They perceive that before their thoughts can be known to others they must express them. These thoughts may then be expressed; as, "The tree is green," "The tree grows," &c. They next discover that to communicate their thoughts they must use words. Now let them form several sentences orally, saying in each case: "I first think about something; I then use words to express my thought. The words that express my thought are —— &c." They are now told that words that express a thought are called a sentence. From this step the pupils are led to define a sentence as follows: "A sentence is words that express a thought." Each member of the class then gives a sentence, saying, "——— is a sentence, because it is words that express a thought."

3. First and Second Parts.—By a similar process of development the pupils are led to observe that before there can be a thought in the mind there must be an object or subject for thought, and that they must think about that object. They further discover that when

they tell their thoughts they speak of some object or subject, and also say something about that object. Hence they will perceive that there are two parts to their sentences which they are informed they may call First Part and Second Part. By repeated trials they soon find that they can form no sentences without these two parts. They are now led to define the First Part as that which represents *the object spoken of*; and the Second Part as that which represents *what is said of the object*. The sentences given in this lesson, and those proposed for the next lesson, should be oral. They may be explained as follows: "Birds sing" is a sentence, because it is words that express a thought. The word "Bird" is the First Part, because it represents the objects spoken of. The word "sing" is the Second Part; it represents what is said of the birds.

4. Kinds of Sentences.—To develop the ideas of these classes of sentences, such as Telling, Asking, &c., it will be necessary for the teacher to invent circumstances in which it would be natural for the pupils to use them. The teacher can then write these sentences *as given by the pupils*, their differences can be pointed out, and the appropriate names given. The proper written expression should be taught at the same time.

The lesson to be prepared for the next day should be carefully assigned. For example, after the lesson on Telling sentences the following may be given out for preparation: "Write on your slates the definition of a sentence, of the first and second Parts, and of a telling sentence. Then write six telling sentences, one about each of these objects: a horse, a book, a girl, a boy, a clock, a flower, and tell only one thing about each." Or, at the close of the second exercise, the assigned lesson might be as follows: "Write the definition of an

asking sentence. Then write an asking and a telling sentence about each of the following objects: home, school, vacation, lions, &c., telling and asking only one thing about each." The sentences prepared by the pupils should be brought to the class and read, after which they should be explained, stating, 1. A Sentence, Why? 2. What kind, Why? 3. First Part, Why? 4. Second Part, Why? &c.

5. Uses of Capital Letters.—Question the pupils in such a way that they will form sentences requiring the use of these capitals, then give the rules. Conduct several exercises on their application. Carefully scrutinize and criticise the work of the class.

6. Punctuation.—Same as above, all new terms being defined.

More complex sentences may be formed after learning the uses of the comma; as, "Tell one thing about two persons." "Tell three things about some animal." "Write three words before the word 'house' to describe the house, and also state something about the house." "Speak to Mary and tell her to do something, asking her if she will do it," &c., &c.

In learning to use the marks of punctuation, sentences correctly punctuated should be presented to the class, from which they can deduce the rules. Then the pupils themselves should form their own sentences and punctuate them properly. Finally, other sentences not written by the pupils may be given them to punctuate.

7. Exercises in Composition.—Position of the subject, margin, paragraphs, &c., should be spoken of. Show the class a good model. At first the lessons should be given as object lessons, the pupils finding out as much as possible for themselves, and the teacher giving all necessary information. The lesson should be summed up

orally in good language by the children, the points having been presented in logical order so that they can easily be remembered. After a course of Object and Animal Lessons, and, perhaps, Plant Lessons, the pupils may be left to write their own compositions from an abstract placed on the board by the teacher. The object lessons may consist of exercises on all objects of common use at home, at school, in the different trades, &c.; also on different kinds of plants, flowers, trees, &c.

The following may serve as a hint in the preparation of abstracts :

Inanimate Objects.

1. *General description of*—defined, of what composed, where found, for what used, shape, size, &c.
2. *Parts*—name, number, and position.
3. *Qualities and uses* dependent on them.

Animals.

1. Foreign or native.
2. Wild, tame, or domesticated.
3. Size, parts, covering.
4. Habits.
5. Uses, living or dead, of its part or as a whole.

Description of a Picture.

1. Name of the scene.
2. Objects seen in the foreground, background, at the right and left.
3. Their appearance.
4. If animate, what they appear to be doing.
5. Thoughts about the picture as a whole.

Description of a game or play.

1. When and where played.
 2. By boys or girls.
 3. Objects used in the play.
 4. Numbers of persons engaged.
 5. The game to be won.
 6. Manner of playing.
 7. What you think about the game.
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CHAPTER XXVIII.

METHODS IN ELEMENTARY GRAMMAR.

SYLLABUS OF TOPICS.

I. The Sentence.

1. *Definition developed.*
2. *Elements as to rank.* (a) Principal, Subject and Predicate. .
(b) Subordinate to subject, adjective elements; to predicate, adverbial and objective elements; the latter direct, indirect, and double.
3. *Elements as to form.* (a) Simple. (b) Complex.
(c) Compound.
4. *Analysis of simple sentences, naming the elements and their uses.*
5. *Sentences classified according to propositions.*
(a) Propositions defined. (b) Classes of Propositions developed; Principal, Subordinate, Co-ordinate. (c) Classes of Sentences—Simple, Complex, Compound.

6. *Analysis of Complex and Compound Sentences.***II. Parts of Speech.**

1. *The Noun.* (a) Definition developed. (b) Its uses in a sentence ; as Subject ; as part of simple Predicate ; as Object ; as Identifier ; as the name of a Possessor ; as the name of the person spoken to.

2. *The Pronoun.* (a) Its definition developed. (b) Its uses in the sentence ; as Subject ; as part of simple Predicate ; as Object ; as representing Possessor ; as representing person spoken to ; as subordinate connector.

3. *The Adjective.* (a) Definition developed. (b) Its uses in a sentence ; to describe objects by showing form, size, color, weight, position, condition, character, &c. ; to number objects, definitely and indefinitely ; to locate them ; to point out an object, definitely and indefinitely ; used as part of simple predicate ; for euphony.

4. *The Verb.* (a) Definition developed. (b) It represents action, being, state, possession.

(c) Its uses in a sentence ; as simple Predicate ; as affirming part of simple Predicate.

(d) The Participle ; its uses in a sentence ; as Subject ; as part of simple Predicate ; as objective element ; as adjective element ; as adverbial element.

(e) The Infinitive ; its uses in a sentence ; as Subject ; as part of simple Predicate ; as adjective element ; as adverbial element ; as objective element.

5. *The Adverb.* (a) Definition developed. (b) Its uses in a sentence ; to describe actions, being, &c. ; joined to verbs, showing manner, time, place, cause ; joined to adjectives to describe qualities ; joined to other adverbs to describe, manner, time, &c.

6. *Preposition.* (a) Definition developed. (b) Its uses in a sentence ; to denote relation ; adjective, adverbial ; indirect, objective.

7. *The Conjunction.* (a) Definition developed. (b) Uses in a sentence; as subordinate connector; as co-ordinate connector.

8. *Interjection.* (a) Definition developed. (b) Its uses.

NOTES ON ELEMENTARY LESSONS IN GRAMMAR.

1. The Utility of the Study.—Grammar has too often been considered by the pupil as a dry, uninteresting subject, which he studies only because he is compelled to do so. It should be the aim of the teacher to present the subject so that it will be not only profitable but pleasant. It should be presented to the class as the *study of language*.

Let the teacher draw from the pupils the fact that language is the means by which we express our thoughts, feelings, and desires. Show how helpless we should be without it, and what a great source of enjoyment it is in many ways. They will thus see the importance of its proper use, and of its study in order to derive the greatest benefit and pleasure from it.

2. Strive to awaken thought.—The teacher should, throughout the course, awaken the mind of the child to activity. He should invent circumstances to arouse thoughts that will require for their expression various kinds of sentences and different forms of elements. The pupil, knowing the thought he intended to express, will be interested in examining the language by which he has conveyed his thought to others; he will also be anxious to hear others express the ideas he has conveyed to them by his words. If they be those which he designed, then pleasure will follow as the reward of his effort. Should he fail to express himself intelligibly, the

failure should be made to act as a stimulus to renewed attempts until success shall reward his perseverance. Having correctly expressed his thought, he will be ready to state for what different purposes the words and elements that hold the most important place in the sentence are used.

3. Clear knowledge of the thought expressed, the foundation of correct analysis.

Thus is laid the foundation for analysis. A perfect understanding of the thought is essential to correct analysis ; hence, the first step should be to prepare the children to analyze sentences they themselves have constructed.

When they shall become quite expert at this exercise, let them analyze the language of others, sentences expressing some simple fact, some important truth, some deep emotion. Let the sentences be such as embody ideas of the good, the pure, the beautiful, the grand in Nature and in human life. Train the pupils to search for the thought behind the words, until their young minds grasp it, their warm hearts swell with the same feelings. Let them strive to express the same thoughts and feelings in their own language. Then they will be ready to analyze the sentences into their parts ; to point out the relation of one to another, and to describe the peculiar use of each element and word.

4. Why Grammar is so distasteful to Children.—Another reason why children so often dislike Grammar is that they are hurried along so rapidly, taking up subjects that are so entirely new to them, and devoting only one or two lessons to their consideration, that they become bewildered and utterly discouraged with the attempt to master the subject.

Time is a necessary element in the attainment of pro-

of North America to be the subject of the lesson. An abstract similar to that which follows should be furnished by the teacher, and each pupil required to collect, arrange, and write the subject matter under the proper headings.

ABSTRACT.

Temperature.	Northern, or cold region.	Coast.	Eastern. Central. Western. Northern. Southern.
	Middle, or temperate region.	Interior.	
	Southern, or warm region.	Northern. Temperate. Coast and Islands. Highlands.	

It would be well to require each pupil to keep a note book, in which the topics and the subject matter of each should be carefully and systematically arranged under the supervision of the teacher. The labor and study necessary in the compilation of the matter under these abstracts will be very useful and important to the pupils, and the books will be exceedingly valuable for reference in reviews.

SUMMARY OF CHAPTER XXVI.

GEOGRAPHY.

(1) Improved methods; old methods unsatisfactory; when properly studied, an interesting science; (2) More rational plans; Geography a dependent science; (3) The study of Geography a means to an important end; a knowledge of the earth, its climate and productions in their relations to mankind; (4) Study of physical features not to be undervalued; to be considered as parts of a harmonious whole; (5) Outlines of course, an exhaustive analysis not attempted; study to be preceded by oral lessons; (6) Geography proper—first step, one year, first grade lessons include representations by map drawing; practical suggestions; (7) Second step—the State, two years; (8) Third step, one year—use of globe; mathematical geography; (9) A syllabus of topics presented; (10) Syllabus of topics in mathematical geography; (11) Brief outline of methods; abstracts.

CHAPTER XXIX.

ELEMENTARY GRAMMAR CONTINUED.

ILLUSTRATIVE LESSONS, NUMBER TWO.

I. Sentences classified according to their Propositions.

Subject matter, or that which is to be taught.

1. A proposition is the union of a subject and predicate.

2. A proposition by itself may or may not form a sentence.

3. A single proposition is a sentence when it expresses a complete thought.

4. A proposition may form an element of a sentence, in which case it is called a clause.

5. Propositions are classified according to their rank in a sentence, as Principal, Subordinate, and Co-ordinate.

6. The principal proposition of a sentence is that which expresses the leading thought.

7. A subordinate proposition is one that modifies the principal.

8. Co-ordinate propositions are those of equal rank in the same sentence.

9. Sentences are classified, according to the propositions they contain, as simple, complex, compound.

10. A simple sentence is one composed of but one proposition.

11. A complex sentence is one composed of a principal and one or more subordinate propositions.

12. A compound sentence is one composed of two or more co-ordinate propositions.

METHODS.

1. Proposition defined.—Teacher asks each member of the class to form a sentence under the following conditions: Giving an affirmative unconditional answer to the question, "Is Mary going home?" They give the subjoined sentence, which is written on the black board: "Mary is going home." The pupils are now asked to answer the same question affirmatively, but to add to it a condition upon which her going depends. A pupil will say, perhaps, "Mary is going home, if it is pleasant." The teacher next takes one of two books and places it in a chair; then asks for a sentence about the book that is in the chair. A pupil says, "The book that is in the chair is an arithmetic." In a similar manner several other sentences are composed and written. The sentences are then analyzed by the pupils, the use of each element being given as it is named. Thus—"The book that is on the chair is an arithmetic," is a declarative sentence. "The book that is on the chair," is the complex subject; "is an arithmetic," is the simple predicate. To "book," the simple subject, are added "the" and "that is on the table," adjective elements showing that some particular book is implied, and pointing out which particular book is intended.

Teacher asks the pupils to define subject and predicate, which they do. They now perceive and answer, when questioned by the teacher, that some elements of these sentences have a subject and a predicate. Each subject with its predicate is then written separately as follows:

Mary is going home.

The book is an arithmetic.

If it is pleasant.

That is on the chair.

When the time arrives.

In which the flowers are blooming.

School will commence.

That is a beautiful garden, &c., &c. The pupils now decide that each expression is a combination of a subject and predicate, but that some express a complete thought while others do not.

The teacher may now call for combinations of subject and predicate that express complete thoughts. Pupils answer, "Birds sing," "Horses run," &c., &c. Also for those that do not express complete thoughts "If I go," "When it rains," &c. The pupils now learn that a combination of subject and predicate, whether forming a sentence or not, is called a proposition, and are ready to define a proposition and to make the statements found in "2," "3," "4" of "Matter," the teacher giving the term clause.

2. Propositions classified.—Sentences such as the following may be written on the board: "Children who persevere will succeed." "Flowers that grow in the woods are called wild-flowers," &c., &c.

The pupils being asked to select the propositions that express the leading thought, do so, and are taught to call them the principal propositions. Each member of the class now defines the principal proposition of a sentence, and illustrates his definition by giving a sentence and selecting its principal proposition. The teacher now writes only the principal propositions of the sentences that were first written:

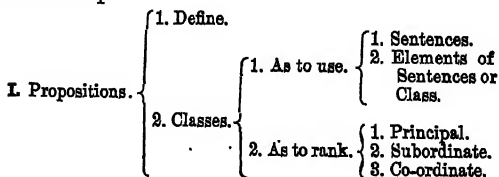
Children will succeed.

Flowers are called wild flowers, &c., &c. Class decides the meaning to be all children and all flowers, and that the signification is changed by adding the propositions "who persevere" and "that grow in the woods." The term "modify" being given, they are ready to form sentences containing a principal and a modifying proposition. The term "subordinate" and its meaning being given they can define a subordinate proposition. A similar method may be pursued in teaching co-ordinate propositions.

3. Classification of sentences.

The pupils are requested to bring to the recitation, written upon their slates, sentences fulfilling the following conditions: (a) Three sentences, each composed of but one proposition. (b) Three, each composed of two propositions, a principal and a subordinate. (c) Three, each composed of three propositions, one principal and two subordinate. (d) Three, each composed of two co-ordinate propositions. (e) Three, each composed of three co-ordinate propositions.

At the recitation the sentences are read, and the different propositions pointed out. The class discover that they have only three different kinds of sentences, for which the teacher now gives the appropriate names. The pupils recite and write the definitions of each kind of sentence, giving a sentence as illustration. They are now ready to make the abstract, which they do with the teacher's help.



- II. Sentences as to Propositions. $\left\{ \begin{array}{l} 1. \text{ Simple.} \\ 2. \text{ Complex.} \\ 3. \text{ Compound.} \end{array} \right.$

4. Suggestions.—More than one lesson will be required to teach all that is suggested in the preceding sketch. Indeed, it may require a distinct lesson for each separate point in the Matter. Much will depend upon the age and ability of the pupils. But whether one or two points are considered at a lesson, each must be copiously illustrated, and the sentences given as examples must be analyzed by the pupils, so that after classifying them, all that will need to be added to the analysis will be the kind of sentence, naming the principal and subordinate propositions, &c., and analyzing the separate propositions.

CHAPTER XXX.

MORE ADVANCED GRAMMAR.

Abstract.

I. Orthography.

1. *Elementary Sounds.* Tonics or vocals ; Subtonics, or sub-vocals ; Atonics or aspirates.

2. *Letters.*

(a) According to form..... $\left\{ \begin{array}{l} \text{Capitals.} \\ \text{Small letters.} \end{array} \right.$

(b) According to sound..... $\left\{ \begin{array}{l} \text{Vowels.} \\ \text{Consonants.} \end{array} \right.$

(c) Combination... $\left\{ \begin{array}{l} 1. \text{ Diphthongs.} \\ 2. \text{ Triphthongs.} \end{array} \right. \left\{ \begin{array}{l} \text{Proper.} \\ \text{Improper.} \\ \text{Proper.} \\ \text{Improper.} \end{array} \right.$

3. *Syllables.*

2. *The Pronoun.*

- (a) Definition.
- (b) Differences between it and the noun.
- (c) Classes {

Personal.	{	Simple. Compound.
Relative.		
Interrogative.		
- (d) Properties.. {

Number.
Gender.
Person.
Case.
- (e) Rules for Construction.

3. *The Adjective.*

- (a) Definition. {

According to the nature of the modification.....	{	Limiting. Extending.
Limiting Adjective.		
- (b) Classes... {

Pure Limiting.....	{	Pure. Qualifying. Articles. Pronominal. Numerals. Cardinal. Ordinal. Multiplicative.
Numerals.....		
- (c) Comparison.. {

Degrees.	{	Positive. Comparative. Superlative. Formation of Comparative and Superlative.
- (d) Rules for Construction.

4. *The Verb.*

(a) Definition.

(b) Classes.	{	According to nature.	{ Copula. Attributive.
		According to form.	{ Copulative. Regular. Irregular.
	{	According to use.	{ Transitive. Intransitive. Auxiliary. Impersonal.
		According to manner of stating the relation.	{ Affirming, the Verb. Assuming. { Participle. Infinitive.

(c) Properties.	{	Voice	{ Active. Passive.
			{ Indicative. Potential. Subjunctive. Imperative.
	{	Tense.	{ Absolute. { Present. Past. Future.
			{ Relative. { Present perfect. Past perfect. Future perfect.

NUMBER AND PERSON.

(d) Conjugation.

(e) Rules for Construction.

5. *The Adverb.*

(a) Define. — Illustrate as added to a . . .	{	Verb.
		Participle.
		Infinitive.
		Adjective. Adverb.

- (b) Classes. { According to nature..... { Pure.
Conjunctive.
Of Place,
Time,
Cause,
Manner. } 1. Degree.
2. Modal.
- { According to attribute... {
- { According to use { Expletives.
Interrogative.
- (c) Comparison. { 1. Why adverbs have this property.
2. Degrees. { Positive.
Comparative.
Superlative.

(d) Rule for Construction.

6. *The Preposition.*

- (a) Define.—Relation..... { Define.
Classes. { Adjective.
Adverbial.
Indirect.
Objective.
- (b) Classes..... { Simple.
Complex.
- (c) Rule for Construction.

7. *The Conjunction.*

(a) Definition.

- (b) Classes. { As to nature..... { Pure.
Conjunctive
words.
As to rank of elements connected. { Co-ordinate. { Copulative.
Adversative.
Alternative.
Substantive.
Subordinate. { Adjective.
Adverbial.

(c) Rules for Construction.

8. *The Interjection.*

(a) Definition.

(b) Rule for Construction.

III. Syntax of Sentences and their Elements.

1. *Sentences classified according to their use as a whole.*

(a) Declarative, (b) Interrogative, (c) Imperative, (d) Exclamatory.

2. *Sentences classified according to their propositions.*

(a) Subject and Predicate. (b) Proposition.

(c) Classes of Propositions as to rank. $\left\{ \begin{array}{l} \text{Principal} \\ \text{Subordinate.} \\ \text{Co-ordinate.} \end{array} \right.$

(d) Classes of Sentences, as to Propositions. $\left\{ \begin{array}{l} \text{Simple.} \\ \text{Complex.} \\ \text{Compound.} \end{array} \right.$

3. *Elements classified according to office.*

(a) Subject. (b) Predicate. (c) Adjective. (d) Adverbial.

(e) Objective $\left\{ \begin{array}{l} \text{Direct.} \\ \text{Indirect.} \\ \text{Double.} \end{array} \right.$

4. *Elements classified according to Rank.*

(a) Principal..... $\left\{ \begin{array}{l} \text{Subject.} \\ \text{Predicate.} \end{array} \right.$

(b) Subordinate. .. $\left\{ \begin{array}{l} \text{Adjective elements.} \\ \text{Adverbial elements.} \\ \text{Objective elements.} \end{array} \right.$

5. *Elements classified according to Form.*

(a) Simple of the First, Second, and Third Classes.

(b) Complex of the First, Second, and Third Classes.

(c) Compound of the First, Second, and Third Classes.

6. *Character of the elements peculiar to the different classes of sentences.*

(a) Elements of Simple sentences. $\left\{ \begin{array}{l} \text{Words.} \\ \text{Phrases.} \end{array} \right.$

(b) Elements of Complex sentences.	<div> <div>Words.</div> <div>Phrases.</div> <div> <div>Clauses.</div> <div> Principal. Subordinate. </div> </div> </div>
(c) Elements of Compound sentences.	<div> <div>Words.</div> <div>Phrases.</div> <div>Co-ordinate.</div> <div>Clauses—Principal.</div> </div>

7. *Contracted Sentences.* (a) Partial Compounds.
(b) Sentences with abridged propositions, or Contracted Complex.

8. *Figures.* (a) Of Etymology. (b) Of Syntax.
(c) Of Rhetoric.

9. *Punctuation.* (a) Principal marks: comma (,), semicolon (;), colon (:), the dash (—), the parenthesis (), the period (.), interrogation point (?), exclamation point (!). (b) Rules for the use of each.

NOTES ON THE FOREGOING SYLLABUS.

Object of the Course.—The object of this course is twofold: To teach those things which are omitted in the previous courses, and at the same time present the subject of Grammar as a harmonious whole, composed of separate parts, it is true, but each following the other in a natural sequence and sustaining its own peculiar relation to the whole.

It is also a partial review, in that subjects before discussed are again considered; but those that were then left incomplete are now finished, and those that need no addition are fitted each into its appropriate place.

METHODS.

The class should use some standard text-book on the subject. The teacher should assign a definite lesson

in the book, with definite instructions in respect to the manner in which it is to be prepared. For example, the first lesson might be the definition of Grammar, its divisions, and their definitions and the first topic under Orthography, Elementary Sounds. The pupils are told to read the lesson through carefully first, so as to get a general idea of the lesson as a whole. Then they are to take up each separate definition, read it, understand it, illustrate by an example not given by the author, and express the same without the book. Finally, they should classify the knowledge they have obtained.

Or, suppose the subject to be Nouns; the lesson assigned may be merely to read the matter through carefully and thoughtfully, preparatory to forming an outline of the subject under the direction of the teacher. An entire recitation may be occupied in this preparatory work, after the subject has been so read by the class. The teacher develops the main topics in their proper order, and leaves the outline to be filled in by the pupils. Thus, as left for the pupils to finish, the abstract on Nouns might appear as follows:

The Noun.	{	Define—Object.	{ Define.	
			{ Classes.	{ 1. 2.
	{	Classes.	{ As to nature.....	{ 1. 2.
			{ As to use.....	{ 1. 2.
			{ As to meaning and form.	
{	Properties.....	{	{ Define.	{ 1. 2. 3. 4.
			{ Classes.....	

The next lesson might be to fill in the outline as far as "properties," and be prepared with definitions and illustrations so far. There are many subjects that will need special instruction on the part of the teacher, while there are others that the pupil can, by careful study prepare entirely by himself. Of the first class may be mentioned the Properties of the Noun, Pronoun, and Verb; the Relative Pronoun; Comparison of Adjectives and Adverbs; Participles and Infinitives; Abridged Propositions, &c. It seems to me better that the rules for construction should follow each part of speech as soon as it is considered, although they are not so placed in all Grammars. As soon as a part of speech has been thoroughly studied, before passing to the next, fix that one firmly in the mind by requiring sentences containing it to be analyzed, and the words, so far as they have been learned, parsed.

SUMMARY OF CHAPTERS XXVII. TO XXX. INCLUSIVE.

GENERAL OUTLINE OF THE COURSE.

I. Introduction, language lessons. II. Elementary Grammar, the course outlined. III. Advanced Grammar, the course outlined. Notes. Time of introducing lessons; use of words, &c.; object of language lessons; syllabus of language lessons; sentences considered; parts of the sentence; kinds of sentences; uses of capital letters; of punctuation marks; outline of course in composition; methods for language lessons presented.

XXVIII.

SYLLABUS OF TOPICS.

I. The sentence and its classes. II. Parts of speech; their uses and definitions. Notes on language lessons.

XXIX.

ILLUSTRATIVE LESSONS.—CONTINUED.

I. Methods proposed; classification of sentences as to propositions; practical suggestions.

XXX.

ADVANCED COURSE IN GRAMMAR.

Detailed outline of the course. (1) Orthography; (2) Etymology and syntax of words; (3) Syntax of sentences and their elements; notes on this syllabus; methods presented.

CHAPTER XXXI.

THE FORMATION OF HABITS AND THE DEVELOPMENT OF CHARACTER AT SCHOOL.

1. General Remarks. — “Give us something practical,” says the teacher of the period. The days of mere theorizing in education seem to be passing away. The leading desire of true educators everywhere, is to learn how to do their work wisely and well. Hence our professional organs are largely engaged in *the discussion of methods and, incidentally, of the principles which underlie them.* This is well. There is no doubt that, under the impulse of this agitation of modes and principles, the average skill of the great mass of teachers will be increased, and that better results will be achieved in the domain of intellectual culture. This will be an important point gained. For one step, and perhaps the first toward the elevation of man, is to improve him intellectually.

2. Practical Education.—But there is a practical education, and there are practical methods for the school-room that do not pertain exclusively to Reading and Grammar, Arithmetic and Geography, the Calculus or the Anabasis. There is a species of training that, in importance and utility, surpasses them all, because it undertakes to deal with the character, and hence it has more to do with true success in life than has the power of computation or expression. That training relates to the formation of right habits and the *development of a virtuous and noble character.*

3. Thought and action — Knowing and doing.—This is a work more comprehensive in its scope and influence than mere intellectual instruction and, indeed, than any other teaching whatsoever. It lays hold of the whole being, physical, intellectual, social and moral. *It supplements the knowing with doing.* It attends to the repetition of good thoughts, feelings and actions until as a consequence of such repetition that which at first perhaps, was difficult or irksome, becomes easy and agreeable. It is one thing to *know*, and still another thing habitually to *do* the right. There are thousands, both in the school of childhood and the far greater school of active life, who know their duty but do it not. This fact is indisputable. All will admit it, and yet too many of us actually close our eyes to the impressive lesson that it ought to convey.

4. A Grave Defect.—It reveals the gravest defect in our system of teaching that can possibly force itself upon our attention. To teach the youth of our land to *know*, and still not lead them a step farther to the *practice* of that which is just and true, is to increase their capacity for evil, while it does not necessarily induce the corresponding *action*. Not to supplement at

every step the knowing with the doing, the thought with the action, the knowledge with its practical application, is as unwise in manners and morals as it would be in a school of mines or engineering, a commercial college, or a military academy. Of what avail would be a system of military tactics if taught from a book, without the actual drill in movements? How vain to attempt a mastery of the science and practice of accounts without the actual drill of the day-book, cash-book, journal, and ledger? And yet this is too often precisely the way in which we attempt the formation of habits and the development of character in the school-room, if indeed we attempt them at all. We are apt to give line upon line, precept upon precept, theory upon theory, without much heed to the character of the actions by which *a knowledge of duty ought ever to be habitually followed.*

5. An Uncultivated Field.—It is manifest that here is a field that lies almost entirely uncultivated before us. Ought we not to reflect that a human being in this life, and indeed, in the great hereafter, will be precisely that which his character makes him, no more, no less? Man is emphatically a creature of habit. It is the chief end of education to form good habits, to develop a perfect character. The character of any individual may be said to be the sum total of his habits.

6. Habits defined.—But what are habits? They are thoughts, feelings, and actions repeated until they become easy, pleasurable, perhaps unconscious. On the theory that all our powers, physical, mental, and moral, are conjointly, not equally, concerned in every act of life, our actions must thus possess a three-fold quality. There must be a moral element even in what might be

called a purely physical or mental act, if such were possible, in the sense that the act is either right or wrong, useful or hurtful. And again, in every physical or moral action there must, in the conscious mind, be a correlated mental manifestation and an impulse of the will.

7. Influence of good actions.—If the truth of these positions be conceded, it will be admitted further, that, not only may good actions spring from right intellectual perceptions, but that such actions may by reciprocity of influence, lead to noble thoughts and virtuous resolves. No thinking person will probably deny the reflex influence of outward actions upon the mental and moral states. An act which at first is distasteful, if often repeated, will soon become agreeable, and eventually ripen into a fixed habit, an element of character. Whether the action be good or evil, the result will be a corresponding habit. The law is invariable and the consequence inevitable. Thus, it is by repetition that actions ripen into habits; habits become fixed and exercise complete dominion over us. They determine the character.

8. A pertinent Question.—Now the simple question is, How can these principles be applied in the daily practice of the school-room? What can we actually accomplish? What methods may be specifically employed to form desirable habits and thus assimilate the characters of our children and youth to that standard which marks the perfect man?

This subject should receive the most careful attention at the Teachers' Institute and in those more permanent agencies where teachers are prepared for their work. In the subjoined sketch, an attempt is made to suggest a few methods looking to a solution of the important problem under consideration.

9. Habits that may be cultivated at school.

—Among the habits that fall within the scope of school influences, and that may be cultivated through its special appliances, the following are suggested :

Promptness and Regularity.

Obedience.

Order, System.

Self-respect.

Respect for the persons, property, and rights of others.

Scrupulous Carefulness.

Neatness of person and surroundings.

· Courtesy.

Kindness.

Justice.

Industry.

Economy.

Attention.

Many others might be mentioned, but the foregoing will suffice for the present purpose. It can not be necessary for a moment, to dwell upon the importance of these habits to the pupil or the school, to the citizen or society; merely to make mention of them is to offer a conclusive argument for their necessity in every well-regulated life and well ordered community. To neglect their careful cultivation in that precious seed-time of life which the school-going days represent, is almost a crime against the peace, good order, and well-being of society, to say nothing of the future success and happiness of the individual.

Let us briefly consider the importance of some of these habits.

Promptness and Regularity.—This is one of the cardinal virtues. So valuable is it as an element of

character that it has been declared, on high authority, to be the foundation of all other virtues. Its opposite may with equal truth, be said to be the parent of innumerable evils and vices. The child that is not carefully and persistently trained always to be at the right place, ready to perform the right duty at the right time, must almost inevitably become the man who is always too late—too late at church, too late at the public meeting, too late in his business engagements, too late to command the confidence or respect of his fellow citizens, too late to win success in the worthy and noble pursuits of an honorable and upright life.

Obedience.—A disobedient boy is the “logical antecedent” of a lawless man. An undisciplined, disorderly school is the natural precursor of a law-defying mob. To obey promptly and willingly, is the first lesson in the school of preparation for a position of command—even of self-command. Disobedience and self-government, as applied to the same individual or community, are contradictory terms. Hence, the most dangerous foe of a free people is a system of schools devoid of the wholesome restraints of a well-ordered and efficient discipline.

Order, System.—“Order is heaven’s first law.” Its cultivation, therefore, is man’s first duty. Confusion and disorder in the management of affairs, ought to be regarded as but little less than criminal, since they lead to disaster, disgrace, crime, and misery. This habit, like many others of the better class, is rarely acquired spontaneously, or without special incentives. There seems to be in most persons a positive disinclination to a systematic method of doing things. Some seem able to acquire it only through long and patient practice. These facts render it the more necessary that special efforts should be put forth to counteract the tendency

to disorder in the individual, and hence in the community.

Self-respect.—Where self-respect is lost, all is lost. In its absence there is little room for honor, virtue, or manliness. This is the hopeless stage in a career of degradation. Self-respect is the foundation of most of the personal virtues. It is a powerful defense against the inroads of vice, and its assiduous cultivation is a duty of the highest importance.

Respect for the persons, rights, and property of others.—This means good manners, a courteous bearing in personal and official intercourse. It implies a deep sense of justice and its faithful exercise at all times. So important are good manners that in many respects they do, in truth, make the man. Nothing can fully compensate for their absence. They are indispensable to complete success in life. There is no adequate excuse for a neglect to employ appropriate and efficient means *to habituate our children and youth at school to the constant practice of good manners.*

Scrupulous Carefulness;—in the use of property whether our own or belonging to others; in the use of language, that it be concise and accurate; in the exercise of our powers of thought and emotion, that we think no evil, and do no wrong. The opposite characteristic is recklessness, or, to use a milder term, heedlessness, either of which is criminal, and in its greater manifestations at least, should be so treated in law and in fact. More property is wasted by carelessness than is saved by prudence. More valuable human lives are sacrificed from this cause than from malice aforethought.

Neatness of person and surroundings.—Cleanliness has been affirmed to be closely allied to godliness.

How can it be possible for a pure heart and filthy habits to co-exist in the same individual? On the other hand, who can deny that neatness of person and surroundings must in the nature of things tend directly to pure thoughts and a guileless heart?

It is not necessary to speak further of the *value* of these good habits. That may be safely taken for granted. The great question is how most effectually to cultivate them by any motives and appliances within the ordinary scope of the school influence.

10. The foregoing syllabus not intended to be exhaustive—merely illustrative.—The habits referred to in the preceding discussion constitute but a small proportion of the number that it is possible, by the direct and skillful employment of the means at school, to instill into the daily life of our children. The list is merely illustrative, not exhaustive. Indeed it should be regarded as one of the chief functions of the school, so to direct its enginery of motives and methods as to make of each child “a bundle of good habits,” physical, mental, social, moral. The teacher who has failed to learn this important lesson, is scarcely prepared to enter the vestibule of his high vocation. The course of studies, so called, ought to be regarded only *as one of the means* to this noble end, and not as an end unto itself. To supplement the knowing with the doing, the conception with the execution, until good deeds with their antecedent motives ripen into the golden fruits of fixed habits and a symmetrical character,—this, and this alone, best meets the demands of a complete and generous education.

CHAPTER XXXII.

FORMATION OF HABITS AND DEVELOPMENT OF
CHARACTER CONTINUED.

11. Methods suggested.—But how may these things be done? A few methods will now be suggested. The intelligence and ingenuity of the conscientious teacher will, however, readily devise others suited to his peculiar circumstances. This department of school duty should be made the *subject of special study and preparation*. When this is done regularly and earnestly, there will be no lack of ways and means in the hands of teachers that have a heart for their business. Occasions will multiply and methods will spontaneously appear.

Promptness and Regularity.—These habits are to be cultivated in connection with School Attendance; Class Movements; the Preparation of Lessons; Class Exercises; Regular hours of Study and Recreation; and the general movements and exercises of the school as a whole; such as, Gymnastics, Music, Recesses, and Dismissal.

School Attendance.—To be at school every day at the appointed hour is the duty of every child belonging to it, when in health. This duty is to be enforced, by appealing to the noblest motives that can influence human conduct:—to the sense of justice; to a regard for the rights of others; to self-respect; to a high sense of honor; and to a love of the approbation of the wise and good.

To be late at school, or in the discharge of any of its duties or to be absent without justifiable cause, is

unjust to one's self and unjust to others. This is easily shown by the embarrassment and loss of time it imposes both upon teacher and pupils. It can be shown by the evil results to which it leads in future life. It can be shown to be rank disobedience to rightful authority. Disobedience of orders or a violation of regulations in the military and naval service is regarded and treated as a crime. It is really no less such in civil life. Disobedience at home or at school is incipient crime. Its logical result is disobedience to the laws of the State and of God, the Righteous Ruler of all. Strive to make your pupils feel and act upon this truth.

Habits of promptness and regularity are to be enforced by subjecting delinquents to inconvenience, and to just and wholesome penalties for each and every case of failure.—Let the doors of the school house be closed at the time of opening the school. Let an assistant or one of the more trustworthy pupils be detailed as Officer of the Day; let it be understood that this officer will admit the tardy ones only at a particular entrance if there be more than one; let him detain them in the entry or waiting room until the opening exercises of the school are ended. Then let the delinquent squad be subjected to the inspection of the principal teacher, and to such admonition or penalties as he may deem it best to administer. If the admonition be given in presence of the school, the pride and self-respect of the offenders will be touched, and they may be induced to turn from the error of their ways. It is sometimes customary to recompense tardy pupils *in kind*; that is, to detain them at the close of school for a sufficient time to exact an adequate recompense. There is no injustice in this, and if the plan be wisely and rigorously carried out, it

may have a happy influence in abating a great evil and forming a desirable habit.

Promptness and regularity may be greatly encouraged by commending those who practice them.—Speak often and highly of the virtue. Cite such illustrious examples as Washington, who waited for no man beyond the appointed hour. Extol it as one of the noblest attributes of true manhood and womanhood. Above all, faithfully exemplify it in your own life and conduct.

In class movements.—Let your classes be moved in all cases by gentle signals addressed either to the sight or hearing. The signals should be quiet, though quick, and your pupils should be trained to obey them with all the precision of a military drill. Among the higher grades of a school there may be an officer for each class. He should be selected on account of his general good conduct and his fitness to command. When the time of a recitation has closed, the exercises should stop at once. The class officer, being charged with the duty of keeping the time, should, at its expiration, instantly arise, command the class to stand and pass, when each member, in perfect order, passes to his regular seat. Too much stress can not be placed upon *these prompt and orderly movements*. They influence the whole character; and since habits are gregarious, they generate orderly practices in other directions.

The preparation of lessons in study hours.—Let your programme define the study hours of each class, and the particular branches that are to be attended to during the given time. This leaves your pupils with no idle moments. It provides useful work for every portion of the day. It thus conduces to promptness and regularity as well as to thorough preparation. *The full employment of the time should be insisted upon.*

In all class exercises.—Here the teacher must be the inspirer and motive power. He must be master of the subject and of the occasion. He must have a *plan of conducting the recitations so well defined* that it is patent to every observer. His own part must be performed with promptitude and precision, and he will then be in a position to compel corresponding action among his pupils. Let him ever remember that whatever course secures the *practice* of right habits, confirms and makes them *elements of character*.

In the general movements and exercises of the school.—Allow no confusion under any circumstances. Let your school be so thoroughly and wisely organized that you can move at will the whole or any part of it with celerity and precision. Let your classes be formed as *companies*, with an officer for each. Give special instructions to the officers, and drill them when necessary. When a general movement is to be made, let it be done by companies, at the word of command, or by signal, according to circumstances. Occasionally, say once a week, *drill your classes to rally rapidly by companies to previously assigned positions*, at a moment's warning. Precision, promptness, and regularity come by practice. They do not appear spontaneously, nor are they acquired by spasmodic and inefficient efforts. Such drills develop true *executive power*. The teacher needs this. Everybody needs it, everywhere. Therefore it should, like the other powers, be developed at school. Every school, particularly every large school, should be organized and conducted on a systematic, or modified military plan. If masses, either of children or adults, are to be handled with facility, and moved rapidly and safely, there is but one general plan, and that is the systematic, or, if you please, the military plan. This system implies neither unkind

ness nor severity. On the contrary, it is perfectly compatible with mutual kindness and respect between teacher and pupils, and it conduces to both. The best system is capable of mismanagement and abuse. But *no* system, or a *half-way* system, is *an abuse in itself*. That discipline which does not *secure* precision and promptness is a misnomer. It is worthless, because it is slipshod and demoralizing. In no country is strict discipline at school more needful than in our own; for nowhere is the lesson of exact and willing obedience more important than in a country whose watchword is LIBERTY UNDER LAW. *System in all things* is to be cultivated by the methods already suggested. The well-ordered school will impress the lesson and *enforce* the *practice* of order at every step. Orderly movements, whether of individuals, classes, or masses; orderly studies systematically pursued; orderly recitations and exercises of every kind, will necessarily develop orderly habits in all who are subjected to their influence. Here, also, *the consistent example of the teacher* is of the greatest importance. He should never neutralize his precepts by the influence of a false example.

Neatness of person and surroundings.—It can scarcely be necessary to occupy much space in the detail of plans for encouraging and enforcing habits of neatness. They must be too obvious to require a formal statement. Nothing can be more inexcusable or out of place than filthiness in the school-room or among its occupants. It costs nothing to be neat, if we except the price of a little labor and patience. Begin, then, by exemplifying neatness of person, and follow it up by enforcing it, if need be, upon your pupils. Provide the necessary aids to this work, or see that they are provided. Require the free use of clean water, clean towels, clean drinking utensils. *Keep the school-room, the furniture, and grounds*

clean at all hazards. Is it necessary to suggest how this may be done? The teacher who has not yet learned the ways and means to neatness has not completed his preparation for his duties, and should be sent to a good laundry, thence to a bath-house, and thence to take lessons of a tidy housekeeper! If your pupils come to school with dirty hands and faces, send them home with clean ones. If they appear to you with dirty clothes and unkempt hair, dismiss them at night with a kind and gentle hint. A school-room, its appurtenances and surroundings, kept scrupulously neat and orderly, will ever be a silent yet powerful incentive to every child *to go and be likewise.*

Carefulness.—It is not speaking too strongly to declare that carelessness is, in most cases, closely allied to crime, and that in its larger manifestations it should be treated as such. There may sometimes be excuses for ignorance, but for carelessness, never. Nothing should be more assiduously cultivated at home, at school, and everywhere, than its opposite, carefulness, forethought, attention. Whatever is attempted to be done at all should be *well done*. If *worth* doing, it deserves *well* doing, care. Hence, let forethought be religiously enjoined and exacted in every exercise, physical or mental, oral or written. Let *a repetition of the act be demanded in case of negligence or inattention until the duty assigned is performed with care.* By persistent attention to what each child does, and to his manner of doing it, any teacher who is so disposed will find abundant opportunities, not only for eradicating bad habits, but imitating good ones, carefulness as well as others.

Respectful deportment.—The practice of good manners should be systematically enforced in every school and household. All of the customary tokens of respect

should be observed, not only in the intercourse between teachers and pupils, but among the pupils themselves. The practice of formally passing the salute on the school grounds, in the street, and elsewhere, by the pupils on meeting in the morning, is to be commended and encouraged, if not insisted upon. Boys and young men should be taught to give the military salute easily and gracefully. They may, indeed, be required to practice it toward all with whom they associate while under the immediate authority of the teacher. A particular time may be set apart occasionally for considering and putting in practice those rules of conduct which govern rational beings in cultivated society. It is a legitimate part of the school work, no more to be neglected than the lessons in language, or the demonstrations of mathematics.

The preservation of property.—One of the most lamentable indications of the day is the growing recklessness in the use of property, and the wanton wastefulness that grows out of it. This practice is literally encouraged, because permitted and uncorrected at school. Our costly school buildings and other public edifices, with their furniture, are often no sooner opened for use than the spirit of vandalism seems at once to be let loose upon them for injury and destruction. The fact is notorious, and our schools should everywhere lay a stern and unrelenting hand upon so grave an abuse. The duty of guarding against such flagrant wrongs should be pressed home by precept, by example, and, when necessary, by the summary punishment of all offenders. In practices of this kind, and kindred evil habits, are to be found the *sources* of crime, and they can not be too severely rebuked.

Attention.—This habit of the mind lies at the foundation of all good teaching and intelligent practice. It is to be cultivated in connection with every study, move-

ment and exercise of the school. It should be made the condition precedent to every event in the power of the teacher to guide or control. Is a movement signal to be given? *Attention* is the first in order. Is a rule to be promulgated, a lesson assigned, a question asked or answered, a recitation heard? Let nothing be attempted until *attention* is secured, and when that ceases let your work cease; for otherwise it will be in vain.

In a word, since *attention* is the basis of all progress and success, seize upon every occasion and legitimate device for arresting and holding it until it becomes indeed a habit, fixed and wrought into the very being of your pupils. Remember that nothing profitable can be done where there is inattention.

SUMMARY OF CHAPTERS XXXI. AND XXXII.

(1) General remarks—principles and methods; (2) Practical education—the formation of habits; (3) Thought and action, knowing and doing; (4) A grave defect in education noticed; (5) An uncultivated field—development of character; (6) Habits defined; (7) Influence of good actions; (8) A pertinent question—What can the school do toward forming good habits? (9) Habits that may be cultivated at school: promptness and regularity, obedience, order, system, self-respect; respect for persons, rights, and property; scrupulous carefulness; neatness of person and surroundings; courtesy, kindness, justice, industry, economy, attention; importance of these habits considered *seriatim*; (10) This syllabus not intended to be exhaustive, but merely illustrative and suggestive; (11) Methods detailed; promptness and regularity, how made habitual; by regular attendance; by subjecting delinquents to proper penalties; by commending those who practice them; through class movements; through regular preparation of lessons; through class exercises; through prompt general movements and exercises; system to be enforced by same means and by example of teacher; neatness, how made habitual; careful habits, how formed; respectful deportment; the preservation of property; attention.

PART IV.

CHAPTER XXXIII.

MANAGEMENT OF THE INSTITUTE.

1. General Remarks.—The origin, objects, organization, and, to some extent, the Course of Instruction of the Institute have been considered. The next step is to make some practical suggestions concerning its management. All previously described conditions may have been fulfilled, and yet, without *intelligent and judicious control and direction*, failure must be inevitable. No agency, whether material, social, or moral, however important its objects or perfect its organization, can accomplish its beneficent purposes without wise and efficient guidance. Neither the institute nor the school, nor any other human instrumentality, is exempted from the operation of this law.

2. The management should be energetic.—Time is precious. The session of the institute is to be brief. It must be assiduously devoted to the promotion of the objects contemplated. To this end everything should be done decently, in order, and with as little delay as may be compatible with well-doing. The example that a prompt and earnest method of conducting its affairs will present, should not be lost upon a body of young and comparatively inexperienced teachers. Let it be such that they will carry with them its inspiration to their respective schools, and thus redeem them from

the reproach that they seem to be devices for killing time. A due degree of deliberation should, of course, characterize the exercises, so far, at least, as may be necessary to secure clear and accurate thought and expression; but let it not degenerate into that slow and easy movement which converts so many schools into dormitories for drowsy children, or contrivances for the promotion of dullness and stupidity. If earnestness and enthusiasm are needed anywhere, it is in the school-room. The order of exercises, if properly prepared, has provided a time for everything. Hence, let everything be done in its time, and let the changes from one event to another be effected without any unnecessary delay.

3. It should be cheerful and vivacious.—So far as the circumstances will allow, it may be reiterated, the institute should be made a pattern for the study and imitation of all who attend it, that their schools may at once feel the impetus and inspiration it is so well calculated to impart. A teacher with a cheerful and animated style is a "pearl of great price" to any school. He diffuses a perpetual sunshine wherever he goes, and converts the class-room into one of the most delightful of resorts. This spirit should ever prevail in the management of an institute. The conductor and instructors should illustrate it in the presence of their pupils. A demure and surly style will be certain to impart its contagion to all subjected to its influence, and it can not fail to tell powerfully against the chances of a successful issue of the work in hand.

4. It demands a responsible head.—Since it is assumed that the institute should be organized and conducted as far as possible, like a school with a responsible head, and not like a deliberative body subject to the irregularities and vicissitudes of a mass meeting, swayed

to and fro by conflicting opinions, it is manifest that it must be controlled and directed by one mind and spirit. This proposition is so evident as to require no discussion.

5. Qualifications of the Conductor.—It is further evident that the conductor should be a person of scholarly attainments, of broad views, generous sympathies, and eminent professional acquirements. He should be quick to perceive, prompt to decide, ready to execute, courteous yet firm in manner, and just in his intercourse. He should possess that keenness of discernment and ready tact which will enable him to adapt himself to the requirements of the occasion. In a word, his scholarship, executive abilities, manners, and professional attainments should be such as to challenge universal respect.

6. Adhere to the Programme.—If the order of exercises has been prepared with due care, it should be faithfully followed in all respects. To tamper with it leads only to confusion, dissatisfaction, and comparative failure. A convenient and rapid method of calling the roll at the commencement of each session has already been described. This is the first duty after the institute has been called to order. The roll of absentees may be reviewed at a subsequent time and explanations heard. This is a good practice. It stimulates regularity. It discourages tardiness and needless absence by appealing to the *principle of self-respect*. No person is so regardless of his reputation as to be willing that his shortcomings should be exposed to public view. The evils of irregular attendance upon our schools are so great that the most radical remedies for their removal may be easily justified. Unless *teachers* can be induced to be prompt and regular, there can be no hope of amendment in their pupils. Let them remember then that the reformation of this abuse must begin at home, with themselves.

7. Devotional Exercises.—No school of any description should omit appropriate religious exercises at the opening of the morning session. They should immediately follow the roll-call. In order to enlist the religious element of the community in behalf of the institute, the services of the local clergy should be secured to conduct the devotional exercises and to assist in the evening lectures. The former should be made impressive yet short, never exceeding five or ten minutes in length. In the absence of the clergy, the exercises may be led by the conductor or one of the instructors. The following plan will be found interesting and impressive, inasmuch as it aids in securing the hearty co-operation of all present. The devotional exercises should occur at the opening of the morning session only.

PLAN FOR CONDUCTING RELIGIOUS EXERCISES.

1. MUSIC, chant or chorus by the entire body.
2. READING OF SCRIPTURES, by the leader and the members responsively.
3. CHANTING OR RECITING *in concert the Lord's Prayer, to be followed immediately by a short silent prayer, with bowed heads and in a sitting position.*
4. CHORUS *by the entire body.*

That seems to be the best method of worship which heartily and reverently enlists the attention and sympathy of the assembly. As this method has been found, after a long experience, to be very satisfactory, it is cordially commended to the consideration of institute conductors and the teachers of our public schools generally.

CHAPTER XXXIV.

MANAGEMENT OF THE INSTITUTE CONTINUED.

8. Class Movements.—Whenever the institute is divided into classes under separate instructors, and in different rooms as heretofore indicated, a simple, prompt and effective method should be devised for moving these classes when necessary in a quiet and orderly manner. The object of this is to save time and afford a good example to the young teachers. It will be a potent *lesson in school management*. Order is not only heaven's first law, but it is the first law of the school-room, where habits are to be formed and character developed that are to be as enduring as life itself. The classes may be trained in a few minutes to move in a certain order at the light tap of a bell, the word of command, or other gentle signal. The members should be seated in the class-room in the order in which they enter it, and leave it in reverse order. By observing a few simple rules like these, which are soon learned and reduced to practice, time may be saved, order preserved, and a wholesome precedent established of great value to the teachers present. In this drill, as in all others of whatever nature in the school-room, precision and promptness should be insisted upon at all times. The truth is that these two characteristics are the *soul of good discipline, and good discipline has more to do with the formation of character than all the studies of the most elaborate curriculum*. There is a moral power in a wisely-con-

ceived and effectively-administered discipline that no other agency can supply.

9. Recesses and intermissions.—These interruptions should be regular but brief, and not too frequent. A general recess of ten or fifteen minutes at the middle of each half day's session will be amply sufficient. When they do occur, all the members should be encouraged to participate in them. They offer an excellent opportunity for agreeable social intercourse between the members. It would be well for the instructors also to take special pains on such occasions to mingle with the members and bring themselves into hearty sympathy with them.

The acquaintances and personal friendships thus formed constitute some of the most valuable results flowing from these meetings of teachers and friends of education. Such opportunities should by no means be neglected. At the close of the recess period the proper signal should promptly be given, and no unnecessary delay should be allowed to occur in the resumption of business.

10. Choice of instructors.—In the selection of instructors it will be wise to look at the question of *their adaptation to the particular branches they are to teach*, and the other special duties they are to perform. For instance, if we wish to secure the best attainable results in reading, language, and their related subjects, we must assign them to the teacher who has special gifts in that direction rather than to one who is indifferent to them. The same principle will apply to the teaching of mathematics, the sciences, and the more distinctively professional subjects that may engage attention. Teaching a subject *con amore* is very different in its results from compulsory or distasteful work. This is one of the

best methods of avoiding stale platitudes and the wearisome practice of talking around subjects, arising from the attempt to teach what is imperfectly understood. Our institutes in many cases, have been brought into disfavor, if not into positive discredit, by a surplus of this style of talking against time. It is in no proper sense, teaching.

11. Day and Evening Exercises.—A reference to the programme heretofore presented, will disclose the fact of a marked difference between the exercises of the day and the evening. During the morning and afternoon drill, exercises are mainly carried on with particular reference to professional objects. Some of them may be regarded as academical, yet they are designed to be conducted in such a manner as to *develop principles and methods of instruction*. One of the best modes of teaching how to teach, is *by example*. We should so teach as to *illustrate* the best methods. Example is more impressive than precept. The practice of an accomplished teacher at an institute will generally make a deeper impression upon his hearers, than the precepts with which it is accompanied.

The evenings, so far as they are occupied, should be set apart for work of a more general nature. A leading object of the institute, let it be remembered, is to *arouse and inform the people*. While it is necessary to educate the children and youth, it should not be forgotten that there is an *education of the people* to be secured, without which, none of our measures to promote the former can succeed. *Public sentiment must be prepared to accept and sustain* the plans for school work. Hence, the proceedings of the evening meetings should be so shaped as to meet this want. Lectures and essays upon *practical educational subjects*, with pointed discussions

in which the people should be freely invited to join, ought to form the leading if not the exclusive feature of the evening work. Care must be taken to avoid long, prosy, and tedious lectures upon unimportant topics. On the contrary, the aim should be to secure those which are short, pithy, and suggestive, and to allow sufficient time to discuss the leading points developed by the speakers. With six hours devoted to the morning and afternoon sessions, not more than one hour and a half should be occupied in the evening. One evening in each week, say on Friday, may be profitably used for purely social purposes. If more than two weeks be devoted to the session, not more than two evenings in each should be given to public exercises. While it is wise to improve the time, it will be very unwise to over-tax the powers of the teachers by attempting to do too much.

12. General Exercises.—By general exercises we imply those in which the entire body of teachers shall take part. Vocal music, drills in elocution, simultaneous answers to general questions, and calisthenics, are examples. Such exercises should be regularly and judiciously interspersed and vigorously conducted. They ought to be brief and sprightly. Aside from being extremely useful *per se*, they give a healthful variety, introduce that change which is equivalent to rest, and thus enable the class to pursue its ordinary work with unabated interest and zeal. If wisely conducted at the institute, these exercises will afford valuable hints to the teachers, and enable them, with such wise modifications as the altered circumstances may demand, to introduce them into their schools.

13. The Use of Apparatus.—While the market is crowded with school apparatus and with multifarious

forms of aids to illustration, it must be confessed that, as a whole, our common schools are lamentably deficient in the possession and application of them to the purposes of instruction. It is true that maps, globes, blackboards, &c., abound in many of the schools, while others, perhaps a great majority, are totally destitute in this respect. In a large proportion of those supplied with material aids, these helps or most of them, are permitted to rust out unused, to suffer abuse, or if used at all, are handled to very little profit. The mere presence of apparatus in the schools is not enough; that does not guarantee its judicious and effective application to its intended purposes. It should not be forgotten that considerable tact and skill are required to *use apparatus with effect*. This is almost a specialty, in itself. The art of manipulating it dexterously and to the purpose, *needs to be taught, not only by example, but by the actual practice of the future teacher*, if possible, under supervision and criticism. Once learned, this art becomes a real pleasure and a fascination both to the teacher and taught. The institutes afford an excellent and indeed almost the only occasion to the majority of teachers, for acquiring the requisite skill in this important department. Hence, apparatus should be liberally supplied and faithfully used at these gatherings. Not only should the example of its skillful use be afforded, but as frequently as possible, the members of the institute should be called upon to *repeat the illustrations and experiments* under the direction and subject to the criticisms of those who are skilled in the art. So important is the ability to use material aids in teaching, that a certain specified portion of time might be profitably employed daily in the work. Skill in this respect will tend more than anything else to draw teachers away from a blind adher-

ence to text-books. It will give them useful practice in oral instruction, and cultivate a habit of self-reliance that is indispensable to real power and success in teaching.

14. Technical Education.—It is one of the most encouraging signs of the times that the number of physical and chemical laboratories, art schools, and polytechnic institutes is increasing throughout the country. Such facts indicate that educated people begin to recognize more than ever the utility of cultivating the hand and eye, as well as the memory of abstract ideas. It shows an increasing belief that *things* no less than *words* are educational instruments of immense importance. Seeing, touching, and handling, as well as hearing and speaking, must lead to understanding and believing. The teachers' institutes, as the principal means at present available for reaching the great body of the elementary teachers, should recognize this truth, seize upon and endeavor to enforce it in the practice of the common schools everywhere.

15. Maps, Globes, Black-boards, &c.—Even as simple and common-place instruments as the black-board, wall map, and terrestrial globe are yet very imperfectly employed as school helps. Hundreds of schools are not supplied, while other hundreds seem to harbor them only as appendages that are more ornamental than useful, or leave them exposed to the ravages of time and youthful vandalism. It is insisted here, that the ability would create the *desire* to use and the *disposition* to save them from the *wear* and *tear* of disuse, as well as the criminality of abuse.

16. Open Questions. The Question Drawer.—Many questions will arise in the minds of teachers during the discussions of an institute, and it is very

desirable that they should be satisfactorily answered. Some of the questions will be upon professional, and others upon general subjects. Ample provision should be made by which pointed and pithy replies may be given. It is sometimes customary to set apart a definite portion of time daily for this exercise. The last fifteen or twenty minutes of the afternoon session will afford a favorable opportunity. The questions may be proposed verbally in open court, or deposited in a box or drawer designated for the purpose by the conductor. Inexperienced and diffident teachers will prefer the latter method. Others will have no hesitation in proposing their questions at the time appointed for their consideration. If wisely managed, this will prove to be one of the most interesting and profitable exercises in the series. Many of the teachers, by means of it, will be able to present the difficulties encountered in their professional experience, and will profit by the solutions that older and wiser heads may freely offer. The time given to the question drawer is thus turned into an experience meeting, and lessons of wisdom that would require years to learn unaided, may here be mastered within a few well-spent minutes. Every encouragement ought to be afforded for the presentation of questions in one form or another, and the utmost freedom should be used in dealing with them concisely, practically, and in a kindly spirit.

17. The Class Drills.—In the management of classes at an institute, special pains should be taken to *individualize the teaching*, by drawing out as frequently as possible, each member of the class. It is not that which is heard merely, but that which is reproduced and digested that is truly acquired. The lecture, or pouring in process is not enough. But little of what is

said in this way is actually retained and applied by the average teacher. The method of conducting the class-drills should be such as to secure the closest attention of all and *draw out*, in a *correct answer* or *apt illustration*, each member as frequently as possible. An accomplished instructor will look carefully after this matter, and not allow himself to call upon the more forward and ready persons only. Questions calling for simultaneous answers and direct questions should be sparingly employed. The habit of calling out the members of a class in a uniform order should generally be avoided. Let each question be pointed and logical; let it be asked promptly; and let the person that is to answer be designated *after* it has been enunciated. This will secure attention, keep the class on the alert with expectation, and enable the instructor to accomplish the maximum of good in the minimum of time.

18. Dictation Lectures, Lessons, &c.—Experience has shown that but few of those who attend the institutes are much profited by lengthy lectures embodying sustained arguments upon abstract subjects, or even a long array of facts and figures. The lectures delivered on such occasions should be brief, and given with a degree of deliberation that will enable the members to write out quite fully the leading thoughts developed. Indeed, dictation lectures so outlined and timed in the delivery as to enable their hearers to record the principal points, are by far the most permanent and beneficial in their influence. Such lectures become a positive acquisition to the hearer, who derives much advantage from the practice of writing out concise and systematic abstracts of the best thoughts of others.

SUMMARY OF TOPICS ON THE MANAGEMENT OF INSTITUTES. CHAPTERS XXXIII. AND XXXIV.

(1) Importance of good management ; (2) It should be energetic ; (3) It should be cheerful and lively ; (4) The Institute must have a responsible head ; (5) Qualifications of the conductor pointed out ; (6) Programme should be closely followed ; (7) Devotional exercises recommended and outlined ; (8) Class movements, how conducted ; (9) Recesses and interruptions to be brief but regular ; (10) Choice of instructors to be characterized by a wise adaptation ; (11) Day and evening exercises to be varied to suit the needs of teachers and people ; (12) General exercises specified and recommended ; (13) The use of apparatus strongly urged ; (14) Remarks on technical education ; (15) Maps, globes, and blackboards, the importance of their free and judicious use ; (16) General and professional questions recommended ; "experience meetings ;" (17) Class drills, how conducted ; necessity of individualizing instruction ; personal power of the teacher in class work ; (18) Dictation lectures and lessons, their value considered.

CHAPTER XXXV.

PROFESSIONAL QUESTIONS.

1. Value of Questions.—Perhaps no form of composition is more suggestive of close thought than concise and pointed questions. If they refer to vital topics, they at once challenge attention and incite to investigation. Thoughtful minds can not easily resist the force of such interrogatories. The art of judicious questioning lies at the basis of thorough teaching. It is therefore worthy of careful study and assiduous practice. By means of the right kind of questions, put at the right

time and in the right order, a teacher may lead his pupils to any desired conclusion through the natural operation of their own faculties. The great advantage of such teaching is that the truths are received into the minds of the pupils with all the force of a legitimate conviction, instead of being passively accepted on the testimony of the teacher and the text-book. The true method of leading out and forming the minds of young children is the method of questioning carefully, logically, thoroughly. Nor is this method devoid of great advantages to adults. Other modes are applicable, it is true, to minds more advanced, but the Socratic method is always in order. If the teacher would increase his power, let him imitate the example of his illustrious prototype of antiquity. The uses to which the subjoined series of questions may be applied are various, and it may be proper to indicate a few of them.

2. The Self-examination of Teachers.—Self-examination is no less profitable in intellectual and professional than in moral and religious culture. It may be regarded as the key to true progress in every department of study. This *introversion of the mind upon itself* is one of the most difficult as well as one of the most useful of mental exercises. It leads to the discovery of one's deficiencies. It defines clearly the limits of our knowledge, and discloses somewhat the extent of our ignorance. It thus becomes a powerful incentive to self-culture.

A careful examination of the questions submitted, will, it is believed, lead to the conviction that there are none in the list *that a teacher ought not to be qualified to answer intelligently*. The answers to many of the interrogatories will be found in the Hand-Book, since they relate to topics discussed herein. References to the

works indicated in connection with some of the questions will afford the information necessary for their proper answers. The best method of using them in the process of self-examination will be, perhaps, to select one series at a time, and, having determined the answers, write them out systematically in connection with the questions, in a book provided for the purpose, leaving a blank space under each answer for such additions or annotations as further reading and reflection may suggest.

3. The question indicates a course of professional reading and study.—By a little attention to the order of the several topics covered by the questions, as well as to the order of the latter themselves, it will be seen that they present an outline of a course of professional study. They are not, however, exhaustive; others will be suggested to the thoughtful teacher as he advances. But they will serve to guide the course of his reflections, and lead him to some of the more important conclusions upon professional subjects. Following the series out to their legitimate answers, the reader can not fail to find himself reasonably well-informed upon a great variety of useful professional topics.

4. The questions will be valuable to Superintendents in the examination of teachers.—In the course of the author's observations in respect to the professional questions employed in the examination of teachers, he has been especially struck with their vagueness and want of breadth. Many of those published in official reports have seemed to be frivolous and of little practical use. Such questions can not stimulate to high professional attainments. They rather encourage mediocrity, and lead to the impression that a fair *knowledge of the branches taught* is the chief requisite in a teacher's qualifications.

The subjoined series has been prepared in the hope of opening up a broader and deeper view of the professional attainments necessary to the teachers of this country. The aim has been to propose no questions of an ephemeral character, but rather to prepare such only as refer to salient points of permanent and vital interest. They are not for a day but for all time, and it is believed that their indirect or suggestive value will prove to be quite equal to their direct and immediate importance.

The author suggests that these questions, with others of a similar character, might be so employed as to effect a general and permanent elevation of the standard of professional attainments throughout the land, by means of *uniform* examinations according to clearly defined rules. This grand consummation might be reached by the general use of portions of the questions at successive examinations of teachers in the several States, selections being made from them and issued in advance, with the understanding that at the appointed time for the examinations, satisfactory answers would be exacted of all who desired certificates of a given grade. If this, or some similar plan, could, by concerted action, be followed up from year to year, it is submitted that an advance would be realized in the qualifications of teachers, and consequently in the character of our schools, not easily attainable in any other way or at so insignificant a cost. Through the Bureau of Education, the National Association, the departments of Public Instruction, and the Teachers' Associations of the several States, such a plan could be inaugurated and successfully carried out, to the immeasurable advantage of the people. This plan accords with the conviction that education is based upon unchanging principles, essentially the same from age to

age, their application only being modified according to time, place, and circumstances. Hence it is possible so to frame questions as to develop the principles and the methods growing out of them. *That all who teach should master these principles and methods is a proposition admitting of no argument.* How to develop them in the minds of the two hundred thousand teachers of the country is an important problem. It is the conviction of the author of these pages, *that no one step would be more conducive to the end in view than the plan suggested.* Whether it be undertaken as a national movement in the manner suggested, or not, the scheme is perfectly practicable in the States possessing organized systems of public instruction, with their machinery of supervision and examination perfectly adjusted and under control. In any event, the scheme may be worthy of consideration, and its discussion can result in no injury to the great interests involved, while it may be productive of incalculable good.

5. Many of the questions will afford fruitful themes for discussion at Institutes, Associations, &c.—Much inconvenience is sometimes experienced through the lack of suitable topics for discussion at Institutes. A careful examination of the questions will disclose a great number of such topics, while their perusal will suggest others of vital importance adapted to these occasions. For the evening sessions, at which it is usually expected that the people will be present, questions relating to the "Location and Construction of school houses;" "Ventilation;" "The relations of Parents and Teachers;" "The State and Education;" and kindred subjects will be the most appropriate. In the series presented, will be found a great number and

variety of this class of questions, to which attention is especially directed.

It has not been deemed expedient to present any questions upon the subjects taught in the schools, since that course would have extended the series far beyond the limits assigned to this portion of the work. Questions of this kind are more easily prepared, and may be indefinitely varied according to the individual views of the examiner. That a systematic and thorough course, especially upon the methods of teaching the elementary branches of study, would prove highly useful in many ways, there can be no doubt. Such a series, superadded to those annexed, with suggestive answers and copious references, is in course of preparation, and may hereafter be submitted to the profession in a separate volume, should there be a demand for it.

QUESTIONS ON THE NATURE OF EDUCATION.

1. What do you mean by Education?
2. Give the etymology of the word (Webster's Unabridged).
3. How does Webster define the term?
4. What is the difference between education and learning? Between education and instruction?
5. What was Milton's conception of education?
6. What was Kant's idea of it?
7. What do Dr. Whewell, Lord Bolingbroke, John Locke, Addison, Bishop Butler, Fellenberg, Marcel, Sidney Smith, Cicero, Dugald Stewart, and Ruskin say of Education?
8. Who was Pestalozzi? Give a summary of his educational principles.
9. Who were John Locke, Addison, Sidney Smith,

Cicero, Dugald Stewart, and Fellenberg? (See American Encyclopedia or Biographical Dictionary.)

10. What was Horace Mann's idea of Education? David P. Page's? W. E. Channing's?

11. Who was Horace Mann? Dr. Channing? David P. Page?

12. State what you know of Fellenberg, Kant. (See American Journal of Education, Vols. III, V., VIII., X., and XIII.)

13. Why should teachers possess a clear conception of the true ends of education?

NOTE.—For concise answers to questions 5, 6, 7, 8, and 9, see report of the United States Commissioner of Education for 1867-8, pp. 833 to 848, both inclusive. Also Barnard's American Journal of Education, Vol. XI, pp. 11-20; Vol. XIII, pp. 7-16; and Vols. III. p. 401, IV., p. 65, &c.

THE PRINCIPAL AGENCIES IN EDUCATION.

1. Name the three most potential agencies in the promotion of education.

2. Which of the three do you regard as the most important? Why?

3. Whose personal influence is the earliest felt by the child?

4. What do you think of the power of this influence?

5. At what age does the child begin to be affected by it?

6. What is the office of the family in the education of the child prior to the school age? What during the school period?

7. Name some of the more prominent duties of the parent toward the school.

8. How may a teacher influence parents to discharge these duties?

9. How would you induce parents to visit the school?

10. Why ought a teacher to visit the parents of his pupils?

11. Name some of the advantages of these mutual visitations.

THE SCHOOL.

1. At about what age should a child first enter school?

2. How far advanced in intellectual culture ought the child to be previous to entering the school?

3. Name some of the more important moral habits to be formed in the child before entering the school.

4. Which of these do you regard as the most important? Why?

5. What personal habits should the child possess before admission to the school?

6. What is the most important lesson in the child's life?

7. How would you habituate your pupils to Obedience? Order? Industry? Promptness? Neatness?

8. Which do you regard as the more potent agency in education, the family or the school? Why?

9. Do you think the school in any case more influential than the home? If so, under what circumstances?

10. For how many hours per day ought children under ten years of age be kept in school?

11. How many recesses, and of what length, would you allow such children?

12. What employment would you provide for them?

13. For how many minutes ought primary pupils to be engaged in a class exercise?

CHAPTER XXXVI.

PROFESSIONAL QUESTIONS CONTINUED.

THE STATE AND EDUCATION.

1. Why should not the education of the young be left exclusively to the family?
2. Why should it not be confided to the church and the family alone?
3. Give what you conceive to be the best reasons why the state should exercise control and supervision over education.
4. What do you mean by the state?
5. Why is knowledge the universal right of man?
6. Why is education the universal interest and duty of man?
7. How is man's inalienable right to liberty and the pursuit of happiness best secured?
8. Why are ignorant men not free men?
9. Why is ignorance a menace to free institutions?
10. Do you think the mere ability to read and write, a sufficient qualification for the exercise of suffrage? If so, why?
11. What were Thomas Jefferson's views of the relations of education to the welfare of the state and the happiness of the people?
12. What were the words of President George Washington in his farewell address?
13. What were the views of William Penn, Presidents Madison and John Quincy Adams?

14. What did De Witt Clinton assert to be the first duty of government?

✓ 15. What distinguished jurist was the author of the following sentiment? "The parent who sends his son into the world uneducated, defrauds the community of a lawful citizen and bequeaths to it a nuisance."

16. What were the views of Horace Mann as to the qualifications of an American citizen?

17. What were the views of Daniel Webster, as expressed in his discourse at Plymouth, Massachusetts, in 1822?

18. Who was the author of this sentiment? "You will confer the greatest benefit on your city, not by raising the roofs, but by exalting the souls of your fellow-citizens; for it is better that great souls should live in small habitations than that abject slaves should burrow in great houses."

19. Why may not the promotion of education be left to the operation of the law of demand and supply?

20. What were the views of John Stuart Mill upon this subject?

21. On what occasion did Lord Brougham give utterance to the following sentiment? "Let the soldier be abroad if he will, he can do nothing in this age. There is another personage abroad, a person less imposing—in the eyes of some, insignificant. The school-master is abroad; and I trust to him, armed with his primer, against the soldier in full uniform array." Who was Lord Brougham?

22. What do you think of this sentiment of Montesquieu? "Education makes the man, that alone is the parent of every virtue; it is the most sacred, the most useful, and, at the same time, the most neglected thing in every country." Who was Montesquieu?

23. What distinguished statesman and philosopher uttered the following truism? "Liberty can never be certain and complete unless among a people sufficiently enlightened to listen in every emergency to the voice of reason."

24. What do you think of the standard of education suggested in the following paragraph?

The education required for the people is that which will give them the full command of every faculty, both of mind and of body; which will call into play their powers of observation and reflection; which will make thinking and reasonable beings of the mere creatures of impulse, prejudice, and passion; which, in a moral sense, will give them objects of pursuit and habits of conduct favorable to their own happiness and to that of the community of which they will form a part; which, by multiplying the means of rational and intellectual enjoyment, will diminish the temptations of vice and sensuality; which, in the social relations of life, and as connected with objects of legislation, will teach them the identity of the individual with the general interest; which, in the physical sciences, especially those of chemistry and mechanics, will make them masters of the secrets of nature and give them powers which even now tend to elevate the moderns to a higher rank than that of the demi-gods of antiquity. All this and more should be embraced in that scheme of education which would be worthy of a statesman to give, or of a great nation to receive; and the time is near at hand, when the attainment of an object thus comprehensive in its character, and leading to results the practical benefits of which it is impossible for even the imagination to exaggerate, will not be considered an Utopian scheme.

25. "Did I know the name of the legislator who first

conceived and suggested the idea of common schools, I should pay to his memory the highest tribute of reverence and regard. I should feel for him a much higher veneration and respect than I do for Lycurgus and Solon, the celebrated lawgivers of Sparta and Athens. I should revere him as the greatest benefactor of the human race; because he has been the author of a provision, which, if it should be adopted in every country, would produce a happier and more important influence upon the human character than any institution which the wisdom of man has devised."

What do you think of the estimate placed upon the value of common schools by the learned jurist that uttered the above sentiments?

26. Upon what does the value of the common schools depend?

27. Name the agencies by means of which their quality is to be improved and raised to the required standard.

28. How extensively should good common schools be established in this country?

29. Give an outline of what you conceive to be necessary to a complete and efficient system of common schools.

ORGANIZATION OF THE SCHOOL.

1. What is meant by the organization of a school?

2. State what items of business should be transacted between the teacher and the school officers, prior to the commencement of the school.

3. Enumerate the more important duties to be performed on the first day of school.

4. Why should a teacher strive to make a pleasant first impression upon his pupils?

5. How many grades or classes ought to be established in a district school?

6. State what, in your opinion, is the proper basis of classification in such a school.

7. What are the chief advantages of a programme of daily exercise and study?

8. State the principles upon which a programme should be formed.

9. What reasons can you urge in favor of carefully adhering to the programme?

10. What items of information should be embraced in the daily record of a school?

11. How would you determine the average daily attendance? Monthly? Yearly?

12. How would you determine the "average number belonging"?

13. State the advantages and disadvantages of daily class records.

14. What are the advantages of written examinations? What of oral? Which do you prefer, and why?

15. By whom should the seating of the pupils be determined, and why?

16. In what manner ought all the movements of a school to be made? What reasons can you give for your opinion?

17. How often and in what manner should the roll be called?

18. In what manner ought the records of a school to be kept?

19. What should be done with the records at the end of the teacher's engagement?

20. Of what use are school statistics of attendance? Upon what does their value depend?

21. In organizing your school what provision would you make for securing order? Neatness? Industry?

CHAPTER XXXVII.

PROFESSIONAL QUESTIONS CONTINUED.

MENTAL PHILOSOPHY.

1. WHAT is the difference, if any, between the soul or mind and the intellect?
2. Under what three divisions is it most convenient to consider the mind or soul?
3. What is meant by the sensibilities?
4. What by the intellect?
5. What by the will?
6. Name some of the sensibilities.
7. Mention some of the means by which teachers may injure the sensibilities of children.
8. What do you regard as the strongest incentive to good actions by young children?
9. What is the difference between capacity and susceptibility.
10. What is a faculty?
11. How many and what are the classes of the intellectual faculties?
12. Explain what you mean by each.
13. To which of these classes does memory belong? Reason? Judgment? Imagination? What is the distinction between recollection and memory?
14. What is consciousness?
15. What is sense-perception?
16. What do you mean by observation?
17. What faculties are the earliest developed in the child?

18. How may these best be cultivated?
19. By what means would you aim to cultivate the imagination?
20. What relation does the cultivation of the imagination sustain to moral character?
21. What is the relation of attention to memory? Name some of the abuses of memory.
22. How would you seek to form the habit of attention in your pupils?
23. What do you mean by a concept?
24. What relation does association sustain to memory?
25. In what ways may a teacher cultivate the power of association in his pupils?
26. What can you say of the importance of this faculty in its relations to other mental phenomena?
27. Upon what does the vividness of mental impressions depend?
28. Upon what does their permanence depend?
29. Why ought not students to study late at night?
30. What are some of the consequences of over exertion in mental labor?
31. What rules would you give respecting the duration of mental labor?
32. Why ought vigorous physical exercise to accompany severe mental labor?

MORALS AND MANNERS.

1. What do you understand by the moral faculty?
2. What is the nature of conscience?
3. Name several of the moral sentiments.
4. How would you endeavor to form the habit of truthfulness in your pupils?
5. By what means would you seek to correct the practice of falsehood?

6. How can a teacher best lead his pupils to the practice of kindness?

7. By what methods would you seek to correct profanity?

8. Why are you bound to keep your promises?

9. How would you lead your pupils to an habitual respect for the property of another?

10. What would be your treatment of cases of hypocrisy and deception?

11. How would you inculcate the spirit of patriotism?

12. What would be your method of treating a quarrelsome disposition?

13. How may courteous manners be best cultivated?

14. What is the difference between reputation and character?

15. Would you attempt to reform an inordinately conceited pupil? If so, how?

16. Mention some of the more prominent evils resulting from carelessness.

17. What proportion of the accidents of life do you conceive to be the result of carelessness?

18. Have you any well-matured plans for breaking up this habit, and replacing it by the opposite characteristic?

19. Do you think that this kind of culture comes within the sphere of the teacher's duties and responsibilities? If not, please state the reasons.

20. Please state what is implied by symmetrical development in education, with moral culture omitted.

21. How may the power of conscience be strengthened?

22. In what way may a teacher wound the sense of justice of his pupils?

23. Name some of the more serious consequences of

neglecting the cultivation of the morals and manners of the young.

SCHOOL STUDIES—PRIMARY.

1. What branches of study are best suited to the wants of a primary class?

2. What reasons can you offer in support of your conclusion?

3. Which of these branches would you give the greater prominence? Why?

4. What method, or combination of methods would you adopt in teaching a class of beginners to read?

5. On what considerations do you base your plan?

6. How would you prevent children from using language mechanically in reading or otherwise?

7. Name some of the evils arising from the use of words by children, without attaching to them their proper signification.

8. Why should ideas precede the use of language?

9. At what stage of progress would you permit the use of a reading book?

10. What aids to teaching reading should precede the use of books by the children?

11. How would you employ the blackboard in teaching reading?

12. In what manner would you make use of cards, charts, pictures, and objects in teaching primary reading, and for what purpose?

13. When and how would you aim to cultivate an easy and natural expression in reading?

14. How would you develop emphasis?

15. How would you secure accurate enunciation?

16. At what stage and how would you introduce Writing into a primary school?

17. What objections can you urge against teaching writing as a merely imitative art?

18. What use can be made of blackboards and slates in teaching writing?

19. In what manner should slates be prepared for the purpose?

20. How would you connect writing with the reading lessons?

21. At what stage of progress would you introduce Spelling, and how?

22. What are the advantages of written exercises in spelling?

23. What are the disadvantages of requiring children to spell words with the meaning and use of which they are unfamiliar, either by the oral or written methods?

24. With what other exercises would you connect the spelling of words?

25. What are the objections to the mere oral spelling of words arranged in word columns?

26. What use would you make of geometrical forms and solids in a primary school?

27. State some of the advantages of construction blocks in a primary class or school.

28. At what stage and how would you introduce Drawing into a primary class?

29. What kind of lessons should precede and accompany those in drawing?

30. When and how should Botany be introduced into this grade?

31. Give an outline of the course.

32. When would you introduce lessons in Number, and in what manner?

33. Give an outline of a course of lessons in number for a primary school.

34. What material aids should be employed in teaching primary number lessons?

35. In what cases and to what extent should textbooks be used in a primary school?

36. For what purpose should lessons in Place be introduced into the primary school?

37. Give a list of the terms whose meaning it is one object of these lessons to develop.

38. For what regular study do lessons in place prepare the pupil, and how?

39. Can you name any other primary lessons leading directly to the same study?

40. What are the advantages of systematic lessons on Color and Form?

41. What class of faculties should it be the special aim of the primary teacher to develop?

42. In what way and how often should a teacher test the accuracy of the pupil's mental impressions?

43. For what length of time should an exercise in a primary school be allowed to continue daily?

44. During how many hours per day should a primary school be continued in session?

45. How many recesses and for what length of time per day?

46. Name such physical exercises as you deem advisable in such a school.

47. In what manner would you aim to promote the Moral and Religious training of the children?

SCHOOL STUDIES—SECONDARY.

1. Give an outline of a course of study for a secondary grade.

2. At what point should each of these studies be taken up at this stage?

3. State what branches of knowledge you deem the most important to qualify an American citizen for the proper discharge of his duties both public and private.

4. State what you deem to be the proper use of text-books. What their abuse.

5. What qualifications are necessary in a pupil to enable him to use profitably a text-book on Arithmetic? Grammar? Geography?

6. Name such of the foregoing studies as you deem suited to pupils of the secondary grade.

7. How far ought arithmetic to be carried in this grade?

8. State why pupils should be confined to processes at this stage.

9. Why would you not demand the reasons for these processes?

10. What should be the main objects in teaching arithmetic at this stage?

11. By what means would you aim to secure accuracy and rapidity of calculation here?

12. What use would you make of the blackboard in teaching arithmetic in this grade?

13. How would you lead your pupils to do their slate and blackboard work in a neat and symmetrical manner?

14. What powers of the mind is arithmetic calculated to call into exercise when properly taught?

15. How would you lead your pupils to an intelligent knowledge of the rules for the various processes?

16. What are the objections to requiring a memorizing of the rules laid down in the text-books, by the pupils?

17. What are the advantages of teaching mental and written arithmetic in connection with each other?

18. What are the objections to teaching Mental Arithmetic as an independent study?

19. What are some of the abuses in teaching this branch to young children?

20. Give an outline of a course of Language lessons suitable for a secondary class.

21. What would be your aim in such a course?

22. What would be your general method of conducting these lessons?

23. How would you employ the slate and blackboard in this course?

24. At what time and in connection with what studies should a teacher attempt to cultivate a ready and correct use of language on the part of his pupils?

25. Give an outline of the plan you would pursue in connection with these studies.

26. What do you consider to be the best evidence a pupil can give of his knowledge upon any subject?

27. When and in what manner would you introduce the Writing of Compositions?

28. What branch of natural science should be taught in a secondary school, and in what manner?

29. Name some of the more important advantages of Botany, as a study for children when properly taught.

30. Why should the Geography of the region immediately surrounding a pupil be first taught?

31. State why a text-book should not be used in the early stages of this study.

32. Give a brief outline of the course you would pursue before using the text-book.

33. Explain what use you would teach your pupils to make of a text-book on geography.

34. What are the advantages of map drawing?

35. Why would you lead your pupils to a knowledge

of the geography and resources of their own State before taking up that of remote regions ?

36. When would you introduce the globe ? What facts would you teach from it ?

37. When and how would you employ wall maps ?

38. What are the most important objects of the study of geography ?

39. What works of reference are necessary for a class in geography ?

40. How would you seek to cultivate language in teaching geography ?

SCHOOL STUDIES.

GRAMMAR SCHOOL GRADE.

1. Give a general outline of the studies suitable for a grammar school, or for a class of similar grade in a country school.

2. How should the methods of teaching in this grade differ from those below it ?

3. State generally how you would conduct a class in Reading in this grade.

4. What preparation for such an exercise would you require of your pupils ? What preparation would you deem necessary for yourself ?

5. Name some of the advantages of a thorough study of the subject-matter of a reading lesson.

6. What kind of a drill would you prescribe as a means of cultivating distinctness of articulation and compass of voice ?

7. How would you stimulate your pupils thoroughly to study the subject-matter ?

8. What are the advantages of occasional concert or simultaneous reading by a class ?

9. Describe your method of teaching Spelling in this grade. Why do you prefer this plan?

10. How should the method of teaching Arithmetic in this grade differ from that of the class below?

11. Why may the consideration of principles and reasons be brought forward here?

12. What should be the leading object in a common school course in arithmetic.

13. Why should not an elaborate treatment of principles be entered upon in the common school?

14. What use should be made of the blackboard in teaching arithmetic at this stage?

15. Give an outline of a course in Geography suitable for a grammar school.

16. What serious objections can you urge against the memorizing of lessons in geography from a text-book?

17. What works of reference would you deem necessary in connection with geography in this grade? What use should be made of them?

18. Why should map drawing be required in all the stages of geographical study?

19. What use would you make of wall maps?

20. What topics in mathematical geography would you teach here? What facts in physical geography?

21. Give outline of a course in Language and Grammar.

22. What use do you make of the text-book here? What of the blackboard?

23. How would you connect Composition with the lessons in language?

24. What use, if any, would you make of parsing exercises, and why?

25. Do you deem the analysis of sentences or parsing the more important, and why?

26. What are the two more important objects of the study of grammar?

27. What branch of natural science, if any, would you introduce in this grade?

28. What are the peculiar advantages of the study of Botany? How far would you allow your pupils to use a text-book in this study?

29. What part of the course in Writing should be taught in the grammar grade?

30. How should the Discipline of a grammar school differ from a primary or secondary grade?

31. What general exercises should be here introduced?

32. Why may topical recitations and reviews be more frequent in the grammar school?

33. What should be the length of the recitations?

34. To what extent may the Etymology of words be introduced?

35. In what way may the study of United States History be conducted here?

36. What are the advantages of this study to American citizens?

37. In connection with what other studies ought some knowledge of the structure of our government to be taught?

CHAPTER XXXVIII.

PROFESSIONAL QUESTIONS CONTINUED.

CONDUCTING RECITATIONS.

1. Name four of the more important objects of the recitation.
2. Which of these objects do you regard as first in the order of time?
3. What is meant by the development of ideas?
4. What is the best method of developing thought?
5. Upon what basis alone is it possible to develop new ideas in the mind of the child?
6. State what you consider to be the true order of nature in this respect.
7. Explain the terms concrete and abstract, and give an example of each.
8. Give an illustration of reasoning from the known to the unknown.
9. Give an example of the mental process of passing from the simple to the complex.
10. To what extent should a teacher aim to cultivate the use of language or the power of expression in a recitation?
11. What valuable purposes are subserved by spending a portion of a recitation in reviewing previous lessons?
12. How may the power of association be cultivated in the recitation? Memory? Comparison? Judgment?
13. How are the extent and accuracy of the attainments of the pupils tested in the recitation?

14. Upon what does the value of our knowledge depend?

15. How are the attainments of a class to be increased in the recitation?

16. Why should a teacher know much more of a subject than he is required to teach?

17. How are the habits of study of the pupils to be determined in the recitation?

18. Why should a teacher make a careful special preparation for each recitation?

19. In what should this preparation consist?

20. What serious evils result from the failure of teachers to make such preparation?

21. What do you mean by a sketch of a lesson?

22. How would you aim to correct wrong habits of study in a pupil?

23. Give an example of a wrong method of study.

24. Why is a persistent concentration of the attention necessary to profitable study?

25. What mental injuries result from the opposite habit?

26. What is a direct question? A leading question? An alternative question?

27. Why should they be generally avoided?

28. In what way would you cultivate self-reliance in pupils?

29. What opportunities are presented by the recitation for cultivating the moral faculties of the pupils?

30. What should be the length of a recitation in a secondary or intermediate class?

31. What can you say of the value of judicious criticism in a recitation?

32. Why should a teacher encourage his classes? How may this be done?

33. For what purpose would you require frequent topical recitations in advanced classes?

34. How would you prevent your pupils from reciting in the language of the text-book?

35. What are the chief objections to class records?

36. In what manner would you require your classes to move *to* and *from* the recitation? Why?

37. What are the benefits resulting from a vigorous style of conducting recitations?

38. To what extent should a teacher use text-books in the recitation?

39. Why should talking in a loud tone of voice be avoided before a class?

40. Why should recitations be promptly closed at the expiration of the appointed time?

SCHOOL MANAGEMENT.

1. What are some of the serious evils of frequent changes of teachers?

2. What evil consequences flow from a failure of school officers to visit the school and support the teacher?

3. Why ought parents and school officers to visit the school often?

4. At what time does the authority of the teacher over the pupil begin and end for the day?

5. Why is there no economy in the occupancy of old, inconvenient, and dilapidated school-houses?

6. What objections can you name to the use of school-houses for public meetings?

7. How would you prevent your pupils from cutting, defacing, and destroying the school building, furniture, and other property of the school?

8. What are the good results flowing from a prompt

and regular opening and closing of the school each day?

9. Why should a teacher be prompt and orderly in his management of a school?

10. What are some of the bad consequences of a contrary policy?

11. Name some of the more serious evils of a peevish and fretful temper on the part of a teacher in school.

12. Why is self-control in a teacher the basis of all proper control over his pupils?

13. What influence has the bad management of a school upon the habits and character of its pupils?

14. Mention some of the more important means to be employed at school in the formation of good habits.

15. To what extent is a teacher responsible for the habits of his pupils?

SCHOOL DISCIPLINE.

1. What is the meaning of the word discipline?
(See Webster's Unabridged.)

2. What are the two leading objects of discipline in a school?

3. Which of these objects do you deem the more important; and why?

4. What motives should be addressed as incentives to right conduct in the pupil?

5. In what manner and on what occasions especially would you appeal to these motives?

6. Mention some of the incentives to right actions that you conceive to be superior to the fear of punishment, and give reasons.

7. Upon what does the moral quality of actions depend?

8. What is the source of all bad conduct?

9. How would you aim to exclude evil thoughts from the minds of your pupils ?

10. What relation does constant and useful employment sustain to the good conduct of pupils and the good order of a school ?

11. What relation does a comfortable and pleasant school-room sustain to good order ?

12. Why ought the teacher to make the school-room and its exercises attractive to his pupils ?

13. What relation does bad air sustain to the disorder of a school ?

14. What has the poor health, either of the teacher or his pupils to do with a disorderly school ?

15. Why is a carefully-devised system of school management necessary, to secure good order ?

16. Why are firmness and consistency of character in the teacher, indispensable to the same result ?

17. How does a carefully-devised and faithfully executed programme of recitation and study tend to secure good order ?

18. Why is a noisy and boisterous manner in the teacher promotive of disorder ?

19. How does a firm and quiet demeanor tend to the opposite result ?

20. Why should corporal punishment rarely be used ?

21. Under what circumstances, if ever, would you employ corporal punishment ? Why ?

22. Name such modes of punishment as you deem improper in a school.

23. Mention such penalties as you deem to be proper.

24. When should a penalty be imposed in private, and when in presence of the school ?

25. Under what circumstances would you consider a school to be governed too much ?

26. How much of a teacher's time should be devoted to government?

27. What are some of the direct and what some of the remote consequences of disorderly schools?

28. What do you think of the plan of detaining pupils at recess and after school for bad conduct or neglect of duty?

29. By what means would you seek to prevent tardiness and absence?

30. What are some of the evils of these bad habits?

31. To what extent are parents responsible for tardiness and absence?

32. By what means would you seek to form studious habits in your pupils?

33. Why should the aim of all government be to promote self-control?

34. What is the only sure foundation of self-government in the community or state?

35. How can a teacher who fails to control himself secure self-control in his pupils?

CHAPTER XXXIX.

PROFESSIONAL QUESTIONS CONTINUED.

LOCATION AND CONSTRUCTION OF SCHOOL HOUSES.

1. Give some of the best reasons why a school building should be placed in an elevated location.

2. What extreme is to be avoided here?

3. Give some good reasons why such a building should not stand directly upon the street.

4. State the principal objections to a flat or a depressed location.
5. What advantages result to the school from a pleasant location?
6. What influence have a pleasant location and surroundings upon the pupils?
7. Why should a school house not be located upon the immediate banks of a stream or pond?
8. Why ought the school grounds to be neatly inclosed and decorated?
9. About what should be the dimensions of a country school house capable of accommodating fifty pupils?
10. What should be the plan of such a building, as to the number, size, and location of the rooms?
11. Why do you deem a separate cloak-room desirable for each sex?
12. How should such cloak-rooms be located as to the entrances? What should be their sizes, and how should they be furnished?
13. How should the grounds and out-houses be arranged in respect to the proper relations of the sexes?
14. What radical defects characterize the arrangements of most of our country school houses, their grounds, and outbuildings, in this particular.
15. What is the influence of such defects upon the morals and manners of the pupils?
16. What valid excuse can you suggest for such gross deficiencies?
17. To what extent are teachers responsible for them?
18. What can competent teachers do to remedy such evils?
19. Of what value are moral precepts in school, in the face of such immoral realities?

20. What plan for seating a school house would you recommend to the people of a country district?

21. What are the relative advantages of single and double seats and desks?

22. Why should the children be so seated as to be able to rest their feet squarely on the floor? What should be the height of the seats and desks respectively, for a primary school?

23. What should be the least width of the aisles? Why?

24. What evil consequences result from the desks being too high? Too low?

25. Why should not a stove pipe pass directly over the heads of the children?

26. What extent of good blackboard should be provided for such a school?

27. With what furniture should a blackboard be provided?

28. With what other furniture, other than that already named, should the school be supplied?

29. What precautions should a teacher take, so far as his influence and power extend, in arranging and furnishing a school house, to secure order, neatness, and comfort?

30. Why should scrapers and door mats be furnished to every school?

31. Why should teachers be thoroughly informed upon these subjects?

VENTILATION OF SCHOOL-ROOMS.

1. What are the constituents of the atmosphere?

2. In what way are these constituents associated?

3. What is the office of oxygen in respiration?

4. What is the use of nitrogen in the atmosphere?

5. What would be the effect of breathing pure oxygen ?
6. What of inhaling pure nitrogen ?
7. What is the composition of carbonic acid gas ?
8. Name some of the more common forms of carbon.
9. What are some of the more common sources of carbonic acid gas ?
10. What causes tend to produce it in the school-room ?
11. Name some of the more injurious effects of the inhalation of impure air by pupils.
12. What is the effect of carbonic acid upon the throat when present in quantity ?
13. What are its effects upon the brain ?
14. How does it affect the mind ? Why ?
15. What other combinations of carbon and oxygen are deleterious to health ?
16. How does the effect of carbonic oxide upon the animal economy differ from that of carbonic acid ?
17. Why is its presence more dangerous than the latter ?
18. What diseases are likely to be produced by foul air in the school-room ?
19. How may you account for the frequently dull and stupid condition of children in school ?
20. How many cubic feet per hour of pure air are necessary to the health of an adult ?
21. How many cubic feet of air space should be allowed for each child in a primary school ?
22. What relation should the method of heating a school-room bear to the ventilation ?
23. Why is a room heated by direct radiation alone, difficult to ventilate ? What is the best method of ventilation in the summer time ?

24. How would you aim to secure sufficient fresh air in case no system of ventilation were provided in your school-room?

25. What are the advantages of a small fire-place and chimney, or an air tube and register, leading from a school-room?

26. What are the disadvantages of lowering the windows during school hours? What are the objections, if any, to opening the doors and windows at recess?

27. Why is it necessary to provide for the admission of pure air into a room, as well as for the expulsion of the foul air from it?

28. Why should not cold air currents be allowed to strike the children?

29. At about what temperature should the air of a school-room be held?

30. What are some of the more injurious effects of too warm rooms?

31. Why should every school-room be provided with a good thermometer?

32. Why should some means for evaporating an adequate amount of water be provided in connection with the heating apparatus?

33. Why do candles, lamps, &c., burn dimly in crowded and ill-ventilated apartments?

34. Why is it dangerous to burn charcoal in an open vessel in a close room?

35. Why is it dangerous to descend into old and unused wells, vaults, and other deep places?

36. What precaution should always be observed before entering such places?

37. Why should the exit for the foul air of a room be near the floor rather than the ceiling?

38. Why should the warm and pure air be admitted near the floor ?

39. On what condition is it possible to expel foul air from an apartment ?

40. Why is it better slightly to lower the upper sash than to be deprived of pure air ?

41. Upon the operation of what law of gases does this method of ventilation tend to improve the quality of the air in a room ?

42. Explain what is meant by the diffusion of gases ?

43. What proportion of deaths among the human race do you suppose results either directly or indirectly from foul air ?

44. How far are teachers responsible for the proper ventilation of the school-room ? Why ?

45. How far are they responsible for the prevalence of correct ideas upon the subject in the community ?

46. To what extent should teachers be held responsible for the health of their pupils ?

47. What excuse have teachers for ignorance upon these subjects ?

48. What is your opinion of those who assume the responsibilities of the teacher without properly qualifying themselves for their duties ?

PART V.

CHAPTER XL.

INSTITUTE PROGRAMMES AND COURSES OF INSTRUCTION.

1. Preliminary Observations.—Experience in the teacher is of the highest importance. In every effort to promote the cause of education, we should avail ourselves of its lessons. In this, as in every other important work, it is mainly through experience that we are finally guided to the most satisfactory results. The programme of an institute or of a school usually sets forth the subjects discussed, the order of exercises, the time devoted to each, and, to some extent, the methods of work employed. The plan that it embodies is such as the observation and experience of those who prepared it have shown to be the wisest, after a complete survey of the whole field. For this reason it is the best attainable record of that experience and of the character of the work performed in any given case.

2. Value of Programmes.—The study of these programmes is the study of experience. Besides representing the subject-matter of instruction, they teach a lesson of forethought, of careful preparation, and of a wise adaptation of means to ends. The work of an institute should never be left to be devised and executed on the impulse of the moment. It should be carefully considered and wisely planned in advance. The excite-

ment and the pressing demands of the actual session are unfavorable to skillful preparation. The programme should not only be arranged, but printed and distributed to the teachers for two or three weeks previous to the assembling of the institute. This course will enable them, in a measure, to prepare for the exercises, and thus to realize the greatest amount of benefit.

3. Organization of Institute Work.—Another lesson to be learned by a study of some of the programmes submitted, is the importance of a thorough organization and supervision of the work as a whole. This lesson may be drawn especially from the examples of New Hampshire, Wisconsin, and Iowa. Not only is the most complete supervision established over the operations of the institutes in these States, but the work itself is carefully laid out and a faithful account is exacted of the manner in which it is performed. Not until such thorough organization and supervision are generally secured, shall we be able fully to realize the advantages of this agency for improving the qualifications of the great body of our teachers. Spasmodic and disconnected efforts may be productive of some good in localities of limited extent. But to move an entire State there must be a complete and harmonious plan and concert of action, such as only a wise organization and an intelligent supervision can secure.

4. State of New Hampshire.

The following is an example of a Programme for Teachers' Institutes prepared and issued under the direction of the Department of Public Instruction of the State of New Hampshire.

ORDER OF EXERCISES.

MONDAY AFTERNOON.

- 2.00—Devotional Exercises,.....
 2.15—Organization,..... Superintendent
 2.30—Arithmetic—Introduction,..... Prof. E. K.
 3.15—Reading—Introduction,..... Mrs. H. M. M.

EVENING.

- Lecture—The Brain,..... Mr. C. C. L.
 Select Readings,..... Mrs. H. M. M.

TUESDAY FORENOON.

- 9.00—Devotional Exercise,.....
 9.15—Arithmetic—Fundamental Rules,..... Prof. E. K.
 Questions,.....
 10.00—Business Arrangements of the School, Superintendent
 10.45—Temperaments, Mr. L.
 11.30—Drawing,..... Mrs. M.

AFTERNOON.

- 1.30—Penmanship,.....
 2.00—Qualification of Teachers,..... J. E. V.
 2.45—Natural Sciences in School,..... Mr. L.
 3.15—Reading—Object-teaching. Word method, Elements, Mrs. M.

EVENING.

Free Discussion—How Improve our Common Schools ?

- 7.00—Duties of Parents,..... Prof. K.
 7.30—Employ Better Teachers,..... Mr. V.
 7.40—Furnish Blackboards, Maps, Dictionaries, &c.,..... Mrs. M.
 8.00—Require better Supervision, Superintendent
 8.15—Citizens,

WEDNESDAY FORENOON.

- 9.00—Devotional Exercise,.....
 9.15—Arithmetic—Fractions,..... Prof. K.
 Questions,.....
 10.10—Geography,..... Mr. V.
 11.00—School-Room Arrangements,..... Mr. L.
 11.45—Book-Keeping..... Mr. V.

AFTERNOON.

1.30—Pure Air—Ventilation,.....	Mr. L.
2.00—Grammar—Elements, Oral Instruction,.....	B. W. C., A.M.
Questions,.....	
3.00—Reading—Articulation,.....	J. E. V., A. M.

EVENING.

Lecture—A Forming World,.....	Mrs. M.
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THURSDAY FORENOON.

9.00—Devotional Exercise,.....	Rev. Mr. C.
9.15—Arithmetic—Interest,	Prof. K.
Questions,.....	
10.00—Moral Instruction,.....	Mr. C.
10.30—Health of Teachers,.....	Mr. L.
11.15—Composition,.....	Mr. V.
11.45—General Questions,	

AFTERNOON.

1.30—Grammar,.....	Mr. C.
Questions,.....	
2.30—Spelling—Primary Classes,.....	Mr. J. M. F.
3.00—Astronomy,	Mr. V.
3.45—Logic of Teaching,.....	Mr. C.
4.15—Reading—Pronunciation,.....	

EVENING.

Lecture—School Management,.....	Prof. H. O.
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FRIDAY FORENOON.

9.00—Devotional Exercise,.....	Rev. Mr. C.
9.15—Proportion, Roots,.....	Prof. K.
Questions,.....	
10.10—Grammar—Analysis,.....	Mr. C.
11.10—School Government,.....	

AFTERNOON.

1.30—Map Drawing,.....	Mr. F.
2.00—Head Work, Head Rest,.....	Mr. L.
2.30—School Law, School Register,.....	Superintendent
2.45—Spelling—Advanced Classes,.....	Mr. F.
3.10—How Interest and Teach Primary Classes ?	Supt. J. G. E.
3.45—Reading—Expression,.....	Mrs. M.

EVENING.

Lecture—Discipline,.....	J. G. E.
Select Readings.....	Mrs. M.

This was substantially the plan pursued in each of the different counties of New Hampshire for the year 1873. It was modified in some of its details according to the circumstances of the locality or the convenience of the instructors. The publication and distribution of such programmes in advance are highly advantageous in many ways. The example may be imitated with profit wherever institutes are maintained.

5. State of Wisconsin.

Allusion has already been made to the very generous and complete provision made for the instruction of teachers in Wisconsin. The fund from which her institutes are supported is munificent, and the appropriations from its annual income are made by the Board of Regents of the State Normal schools, under whose general supervision the institutes are conducted. So elaborate are the preparations for these annual convocations of teachers, and so minute are the instructions under which they are operated, that it has been deemed advisable to give the details in full. For permission to do so the author is indebted to the courtesy of the Superintendent of Public Instruction. The fullness of these details renders it unnecessary that any comments or explanations be added. They speak for themselves and are eminently worthy of study by all who are interested in this work.

INSTITUTE PROGRAMME—FIRST WEEK.

TIME.	EXERCISE.	MONDAY.	TUESDAY.
8.45 A.M.....	Opening Exercises	.....	.....
9.00	Class work.	.....	Arithmetic—Fundamental rules.
9.45	Methods.	.....	Primary Arithmetic.
10.30		RECESS.	RECESS.
10.45	Class work.	.....	Reading and Spelling.
11.30	Methods.	.....	Primary Reading.
12.00 M.....		INTERMISSION.	INTERMISSION.
1.30 P.M.....	Class work.	Organization and Spelling.	Geography of Wisconsin.
2.15	School management.	Art of Teaching.	Organizing mixed Schools.
3.00		RECESS.	RECESS.
3.15	Model Class.	Teacher appointed by Conductor.	Teacher appointed by Conductor.
4.00		MISCELLANEOUS.	MISCELLANEOUS.

SECOND WEEK.

8.45 A.M.....	Opening Exercises	.....	.....
9.00	Class work.	Arithmetic—Reduction.	G. C. D. and L. C. M.
9.45	Methods.	Penmanship.	Penmanship.
10.30		RECESS.	RECESS.
10.45	Class work.	Reading and exceptions to rules for Spelling.	Reading and use of Dictionary.
11.30	Methods.	Composition.	Letter Writing.
12.00 M.....		INTERMISSION.	INTERMISSION.
1.30 P.M.....	Class work.	Geography of United States.	History of U. S., Spanish Colonies, Claims and Settlements.
2.15	School management.	Recitation—Methods and Objects.	Reviews.
3.00		RECESS.	RECESS.
3.15	Model Class.	Teacher appointed by Conductor.	Teacher appointed by Conductor.
4.00		MISCELLANEOUS.	MISCELLANEOUS.

INSTITUTE PROGRAMME—FIRST WEEK.

WEDNESDAY.	THURSDAY.	FRIDAY.
..... Mental Arithmetic. Drill in Mental Arithmetic.	..... Notation and Numeration and Definitions. Number Lessons.	..... Classification of numbers. Factoring.
RECESS.	RECESS.	RECESS.
Reading and Spelling. Intermediate Reading.	Reading and Spelling. Language Lessons.	Reading and rules for Spelling. Language Lessons.
INTERMISSION.	INTERMISSION.	INTERMISSION.
Outline Map of Wisconsin. Programme.	Geography of North America. Warming and ventilation of school-room.	Outline of Map of North America. Seating, movements of Classes—Records.
RECESS.	RECESS.	RECESS.
Teacher appointed by Conductor.	Teacher appointed by Conductor.	Teacher appointed by Conductor.
MISCELLANEOUS.	MISCELLANEOUS.	MISCELLANEOUS.

SECOND WEEK.

..... Common Fractions. Oral instruction—Gulf Stream.	..... Common Fractions. Drawing.	..... Percentage. Drawing.
RECESS.	RECESS.	RECESS.
Reading and use of Dictionary. Calisthenics.	Reading and Word Analysis. Calisthenics.	Reading and word Analysis. Calisthenics.
INTERMISSION.	INTERMISSION.	INTERMISSION.
United States History—Treaties. School Government.	Causes and events leading to the civil war. Qualifications of Teachers.	Closing exercises.
RECESS.	RECESS.	RECESS.
Teacher appointed by Conductor.	Teacher appointed by Conductor.	Teacher appointed by Conductor.
MISCELLANEOUS.	MISCELLANEOUS.	MISCELLANEOUS.

INSTITUTE WORK, 1874.

TO THOSE PERSONS WHO CONDUCT AND THOSE WHO ATTEND
INSTITUTES.

The work of training the youth of this State to habits of thought, industry, and usefulness is one of grave importance.

Properly to lay the foundations of true greatness, broad and deep, so that good citizenship shall result, is worthy of careful attention.

Considerable time and money are being expended by the State in order to prepare teachers for their duties.

A meeting of gentlemen interested in the work was called at Madison, July 10-14, to mature the Institute work for the State, that there might, if possible, be unity of effort. After careful consideration, the accompanying schedule has been prepared to guide you in your duties.

While considerable time ought to be given to methods of presentation and detail of plan, yet much *class work* is needed, so that the subject taught, as well as the *manner of teaching*, shall be well understood. In this a *clear comprehension* of a subject does not necessarily involve minuteness of detail.

The *quality* and not the *quantity* should be the aim, in the short time allowed. To accomplish this, the Institute must be, as far as possible, a *model school*.

The recitations should be models; the *manners, deportment, and punctuality*, models. Thus the spirit emanating from these meetings will permeate the subsequent life of each teacher.

As a great amount of work is laid out, it is recommended that the class be numbered, and divided into two sections by the even and odd numbers.

No. 1 reciting one day in *Reading, Geography, Grammar*, and No. 2 listening; the same day, No. 2 reciting in *Arithmetic, Spelling, and History*, while No. 1 is listening. The next day, No. 1 recites in *Arithmetic, Spelling, and History*, and No. 2 in *Reading, Geography, and Grammar*.

In this manner a healthy competition will secure in recitations a fair standard of perfection, while the pupils will not be overburdened with so *much* work as not to do *any well*.

In case the Institute numbers less than fifty members, it shall be in the discretion of the Conductor to make one class and diminish the number of branches.

It is recommended that the *conductor* and *assistant* shall prepare each day a scheme of the work they wish to accomplish, so that there may be *point* and *freshness* in the recitation.

Also, that but one evening lecture per week be given, as the evenings should be devoted to study and preparation for the daily work.

Also that *one* daily exercise in class work be conducted as a *model*, by a pupil, to be followed by criticism from critics previously appointed.

Each conductor shall cause a full record of *attendance, deportment, and plan of daily work* to be made, and at the close of the institute, forward to the State Superintendent at Madison. Conductors will also prepare and forward to Madison, reports covering, as far as possible, the following points:

(I.) Any modifications of syllabus, and reasons.

(II.) Measures taken to secure *punctuality, good deportment, and attention*, with results.

(III.) Recitations:

(a.) Means to secure *accuracy and promptness*.

(b.) Result as regards (1) Memorizing. (2) Original thought.

(c.) Topical and Individual.

(d.) Catechetical and Individual.

(e.) What co-operation allowed on the part of class or teacher.

(f.) What aid given before recitation.

(IV.) Alternation of sections—results.

(V.) Average age of teachers.

(VI.) Average experience of teachers.

(VII.) Proportion of sexes.

(VIII.) Proportion of old and new members.

(IX.) Amount of time devoted to study.

(X.) Moral and social condition of members:

(1.) In class room. (2.) At recesses. (3.) In the community.

To this schedule is appended a programme of *study* and *recitation* in mixed schools, not as a pattern but as a suggestion. Also a scheme for the study of botany for one term.

SYLLABUS.

SCHEDULE OF DAILY WORK.

1. Reading.....	45 min. per day		^{h.m.} 3.45	per week.	
2. Arithmetic.....	45 "	"	3.45	"	"
3. Geography.....	35 "	"	2.55	"	"
4. Spelling and Analysis of Words.....	25 "	"	2.20	"	"
5. Penmanship and Drawing...	20 "	"	1.40	"	"
6. Grammar.....	35 "	"	2.55	"	"
7. History and Constitution....	40 "	"	3.20	"	"
8. Opening Exercises, Roll-call,	12 "	"	1.15	"	"
Recesses	26 "	"	2.30	"	"

		min. per day.	h.m.	per week.
9. Vocal Music, if practicable ; if not, the time to be given one-half to Physiology, one quarter to Botany, and one quarter to Biography.....	15	"	0.50	"
10. Critical Class Drill, Criticism,	30	"	2.30	"
11. Methods of Teaching, Theory and Art, Lecture or Discus- sion.....	30	"	2.30	"
Morning session begins at 9 o'clock.				
Afternoon session at 1.30 o'clock.				

READING.

Time, 45 minutes—divided into two parts—(a) first part, 25 minutes, (b) second part, 20 minutes.

FIRST WEEK.

Second Day. First Part.—Lecture on importance of Reading, and on the manner of treating cases of *Defective Articulation*.

Second Part.—*Powers and Markings of a.*

Third Day. First Part.—Method of conducting recitations in *Primary reading* (1) with reference to *beginners*; (2) with reference to First and Second Reader Classes.

Second Part.—*Powers and Markings of e and i.*

Fourth Day. First Part.—Continuation of third day's work.

Second Part.—*Powers and Markings of o and u.*

Fifth Day. First Part.—Drill in *Spelling* by sound.

Second Part.—Written review of above second-part work, with *five* words to illustrate each vocal element.

SECOND WEEK.

First Part.—During the remainder of the term, give attention in every exercise to *analyses of thought*, and

let that be followed by reading, with reference to the *laws of expression*. Confine the reading this week to *one descriptive or narrative selection*, with special attention to *Pitch*.

Second Part.—The letters representing *Vocal Sounds*, called *Vocal Substitutes*, with *five* illustrative words for each sound.

THIRD WEEK.

First Part.—Read an *argumentative* piece, giving attention to *Rate* and *Force*.

Second Part.—Classification of consonants, *Powers*, and *Markings*.

FOURTH WEEK.

First Part.—Read *one* piece in Verse or one in Dialogue, giving attention to *Qualities of Voice* and to manner of breathing, *Effusive*, *Expulsive*, and *Explosive*, with written Review of the whole.

Second Part.—Powers of *vowels* in *unaccented syllables*, with drill on *accent*, with written Review of whole.

ARITHMETIC.

45 minutes daily.

FIRST WEEK.

Primary Arithmetic.

Development of the idea of number, by Addition, by Subtraction, by Multiplication, and by Division, using objects.

Fundamental principles established. Especial attention given to verification. Abstract numbers. Drill exercises in Addition, Subtraction, Multiplication, and Division.

Reading written abstract of work for the week. In this abstract, specific illustration to be required.

SECOND WEEK.

Mental Arithmetic.

Practice in performing fundamental operations with rapidity, giving results only.

Problems involving Addition only.

"	"	Subtraction	"
"	"	Addition and Subtraction.	
"	"	Multiplication only.	
"	"	Addition and Multiplication.	
"	"	Subtraction and	"
"	"	Add., Sub., and	"
"	"	Division only.	
"	"	Combinations as above with	
		Division.	

Reading of written abstract of work for the week.

NOTE.—After a problem given by the teacher has been solved, let the pupil make and solve one of similar structure. *

THIRD WEEK.

Practical Arithmetic.

Definitions, Notation and Numeration.

Classification of numbers.

Addition and Subtraction :—

1. Simple Numbers.
2. Decimals.
3. Common Fractions having same denominator.
4. Compound Denominate Numbers, not involving fractions.

Factoring. Divisibility of Numbers.

Greatest Common Divisor and Least Common Multiple of whole numbers and fractions.

FOURTH WEEK.

Reduction, ascending and descending, of Denominate numbers and of Common Fractions.

Multiplication and Division of Denominate numbers and of Common Fractions.

Change from Common Fractions to Percentage; Problems in percentage.

Note.—When the solution of a problem requires several operations, let one member of the class give the verbal analysis, another put this in proper form on the blackboard, and a third find the result in its simplest form.

GEOGRAPHY.

Time, 35 minutes.

FIRST WEEK.

Facts of Personal Observation.

Monday.—Land Features; as, *hills, valleys*. Water Features; *springs, brooks, rivers, lakes*.

Tuesday.—Productions—Vegetable; *herbs, trees*. Animal; *domestic, wild*. Mineral; *rocks, soils*.

Wednesday and Thursday.—Direction and Distance, Cardinal points. Development of the conception of linear units; *foot, rod, mile*. Application in *school-room; school grounds*.

Friday.—Definition and distinction of Town and Township. Illustrate by reference to the county map.

SECOND WEEK.

Monday.—County; Surface, *land, water*. Productions; *vegetable, animal, mineral*.

Tuesday.—Form of the Earth, proofs.

Wednesday.—Mathematical Geography; Principal Lines, their *position* and *use*.

Thursday.—Definition and length of a *degree*, Latitude, Longitude. Determine relative lengths in Wisconsin.

Friday.—Motions of the Earth; Alternations of *day* and *night*, change of *seasons*. Causes.

THIRD WEEK.

Monday.—Draw map of Wisconsin (outline).

Tuesday.—Complete Map of State, fixing its Latitude and Longitude, locating chief rivers and railroads, ten chief cities and the county.

Wednesday.—Discuss *Surface*; Land, water, *soil*, *climate*.

Thursday.—Vegetables, Animals, Minerals. — *Exports*, *imports*.

Friday.—Population; *Amount*, *race*, *character*. Civilization; *Wealth*, *intelligence*, *education*, *morality*.

FOURTH WEEK.

Monday.—In one or more *squares*, 20 inches on a side equaling 400 miles, place outline sketches of Islands, Lakes, States, as *tests* in comparative area.

Tuesday.—Outline map-work on United States. Boundary Features. Natural, arbitrary.

Wednesday.—Surface; Mountain systems, *plateaus*, rivers and river systems.

Thursday.—States, territories, capitals and chief cities.

Friday.—Review.

ORTHOGRAPHY.

Time, 25 minutes daily.

FIRST WEEK.

Lists of 25 words in common use to be written each day; the words selected to be those not spelled according to rule, but frequently misspelled. One or more of these lists may consist of geographical names often used. Oral review, each day, of the previous lesson.

SECOND WEEK.

Rule of Spelling.—"Silent *e* final, of a word, is dropped before a suffix beginning with a vowel." Spell lists of words falling under the rule, and of exceptions. Require pupils to bring in short lists of words exemplifying the rule, and each law of exception to the rule. Oral reviews as in the previous week.

THIRD WEEK.

Word Analysis.—Some of the more common and useful prefixes, suffixes, and roots to be learned each day. Derivatives to be formed, observing the rules of spelling, and definitions to be derived.

FOURTH WEEK.

Word Analysis.—continued for three days.

Fourth day.—Lecture on the use of the Spelling Book, use to be made of the lists of words of similar and opposite meanings, &c.

Fifth Day.—General spelling-down exercise, no words to be used but those given in the lessons of the Institute.

PENMANSHIP.

Daily Exercise—Time, 20 minutes, 2 weeks.

First Day.—Specimen of Penmanship secured from each member of Institute. Attention given to position of hands, feet, body, and manner of holding pen. Movement drill 5 minutes.

NOTE.—This movement drill for 5 minutes should precede each day's work.

Second Day.—SLANT; Make lines 1, 2, and 3 units in length, a portion of the class at the board. Write on board and paper. Criticisms confined to slant.

Third Day.—HEIGHT; Comparative height of letters, *u* taken as the standard. Scale formed. Writing on board and paper. Criticisms confined to *slant and height*.

Fourth Day.—FORM; Analysis of small letters *i, u, w*.

Fifth Day.—FORM; Analysis of small letters, *a, l, g, f*.

Sixth Day.—FORM; Capital principles and analysis of capitals.

Seventh Day.—Right and wrong forms of letters illustrated. Tests applied to specimens presented the first day. Methods of criticisms exemplified and applied.

Eighth, Ninth, and Tenth Days.—Class drill to represent ordinary school work.

DRAWING.

Time, 20 minutes.

FIRST WEEK.

1. *Monday.*—Lines; vertical, horizontal, oblique.
2. *Tuesday.*—Measurement of lines. Scale taught.
3. *Wednesday.*—Combination of two lines to form angles, right angle, obtuse angle, acute angle.
4. *Thursday.*—Combination of three lines to form

triangles, right-angled, equilateral, isosceles, and scalene. (Particular attention given to equilateral and isosceles triangles.)

5. *Friday*.—Formation of designs from triangles, by arrangement around a common center. (Work inventive.)

SECOND WEEK.

6. *Monday*. — Quadrilaterals, names. (Work inventive.)

7. *Tuesday*.—Formation of designs by arrangement of quadrilaterals around a common center. (Work inventive.)

8. *Wednesday*.—Formation of designs from triangles and quadrilaterals combined. (Work inventive.)

9. *Thursday*.—Outlines of familiar objects by the use of straight lines. (Class work imitative.)

10. Outline of curved-line drawing.

GRAMMAR.

Time, 25 minutes, daily.

FIRST WEEK.

First Day.—State the province of Grammar; show *what* may be taught to young pupils, and *how* to teach it.

Second Day.—Have class bring in different kinds of sentences and analyze, chiefly with reference to the thought.

Third Day.—NOUN; Its functions, forms, positions, classification, treated orally in the class with blackboard illustrations.

Fourth Day.—The teachers to bring in the same subject properly arranged on paper with sentences illustrative of each point. The papers to form subject of that day's lesson.

Fifth Day.—ADJECTIVE ; Functions, classes, forms, position, with sentences illustrative, by teachers. Examples of false syntax by conductor to be corrected by class.

SECOND WEEK.

First, Second, and Third Days.—PRONOUN ; Functions, classes, forms, positions, with illustrative sentences. Special attention to the different functions of the pronoun and correspondingly different forms. Examples of false syntax by conductor to be corrected by class.

Fourth and Fifth Day.—ADVERBS ; As before, with adjective and adverbial phrases and clauses. Sentences by conductor illustrative of false syntax, both in form and position, to be corrected by class.

THIRD WEEK.

VERB ; Functions, classes with regard to form, with regard to signification ; changes of form (in this and all other cases, the reason of the changes to be given) ; relation to and influence upon other words. Illustrative sentences by teachers ; sentences by conductor to be corrected by class, with reasons therefor. In all the papers by the pupils, strict regard to be had to neatness, order, penmanship, capital letters, spelling, and punctuation, that the grammatical exercises may be eminently practical exercises in composition.

FOURTH WEEK.

Phrases and clauses used as substitutes for the noun, adjective, and adverb. Special attention to the syntax of such.

A paper from each teacher embodying the salient points of all the previous work. One or more of these to be examined in class as text for an oral review.

Consideration of a few of the principal rules for agreement and government.

Last Day.—Review the work. Bring to the notice of the class any difference of treatment that the subject may require in school, from that in the Institute.

HISTORY.

Time, 40 minutes daily, 2 weeks.

- I. 1. Discovery, with historical causes.
- II. 2. Claims derived from discovery and settlement.
- 3. Transfers of territory.
- 4. The colonies ; royal, proprietary, and charter.
- III. 5 and 6. Two administrations. (Jefferson's and Jackson's recommended.)
- IV. 7. Causes and events leading to the civil war.
- 8. Analysis of campaigns in the East.
- 9. Do. in the West.
- 10. Results of the war up to the present time.

Each lesson should be analyzed on the blackboard, and the Outline Map should be constantly in use. The main points only of each lesson should be held to, and minor parts omitted.

CIVIL GOVERNMENT.

Time, Same as History, 2 weeks.

- 1. Historical sources (1) English, (2) Colonial constitutions, and (3) Articles of Confederation.
- 2. Citizenship and naturalization.
- 3. Electorship, (the first process of representation.)
- 4. *Legislative.* Qualifications and manner of election of Senators and Representatives. Compare State legislatures.

5. Process of law-making, in Congress and Legislatures.
6. *Executive*. National and state.
7. Administrative officers, foreign and domestic.
Compare State officers.
8. *Judiciary*, national and State.
9. County and town organization.
10. General review.

ALGEBRA.

Time of recitation, 45 minutes, outside of regular institute work.

First Day.—Connection of Algebra and Arithmetic.
Illustrations.

Second Day.—Connection of Algebra and Arithmetic.
Illustrations.

Third Day.—General Definitions ; Classify Symbols.

Fourth Day.—Review ; Idea of *Positive and Negative Quantities*.

Fifth Day.—Addition ; Relation to Arithmetic.
Cases. Axioms or Principles.

Sixth day.—Subtraction ; Cases, law of Signs, Axioms or Principles.

Seventh Day.—Multiplication ; Law of signs, relation to Arithmetic.

Eighth Day.—Multiplication ; Law of Exponents.

Ninth Day.—Multiplication of Binomials.

Tenth Day.—Multiplication, Theorems I, II, III.

Eleventh Day.—Division, Laws of Signs.

Twelfth Day.—Division, Laws of Exponents.

Thirteenth Day.—Theorem $x^0=1$.

Fourteenth Day.—Theorem $H^m = \frac{1}{H^{-m}}$.

Fifteenth Day.—Factoring ; Monomials, Binomials.

Sixteenth Day.—Factoring, Binomials.

Seventeenth Day.—Greatest Common Divisor and Least Common Multiple.

Eighteenth Day.—Fractions; Reduction, ascending, descending.

Nineteenth Day.—Symbols of 0, ∞ , $\frac{1}{2}$.

Twentieth Day.—Review.

GEOMETRY.

First Day.—Introduction; idea of line, surface, solid.

Second Day.—Definition and classification of lines and angles, and formation of polygons, especially triangles.

Third Day.—Review; axioms.

Fourth Day.—Theorem treating of straight lines and their intersections.

Fifth and Sixth Days.—Same subject.

Seventh Day.—Triangles and their classification.

Eight, Ninth, Tenth, Eleventh, and Twelfth Days.—Theorems (1 per day) relating to triangles.

Thirteenth Day.—Quadrilaterals; classification.

Fourteenth, Fifteenth, Sixteenth, and Seventeenth Days.—Theorems relating to quadrilaterals.

Eighteenth Day.—Polygons; classification and theorems.

Nineteenth Day.—Theorem or problem.

Twentieth Day.—Review.

NATURAL SCIENCES.

In view of the difficulty attending the introduction of new branches of study into mixed schools of the State, it is recommended that work be done upon Botany and Physiology only; the former in the summer months, and the latter in the winter.

PLAN OF WORK FOR BOTANY.

I. *Leaves*.—

- (1) Parts.
- (2) Form.
- (3) Venation.
- (4) Margin.
- (5) Kinds.
- (6) Arrangement on stem.
- (7) Use.

II. *Flowers*.—

- (1) Parts. (a) Sepals. (b) Petals. (c) Stamens.
(d) Pistils. (Seed vessel.)
- (2) Form, color.
- (3) Arrangement on stem.
- (4) Purpose of.
- (5) Adaptation of parts to purposes.

III. *Stem*.—

- (1) Parts.
- (1) Modes of growth.
- (3) Kinds.
- (4) Uses.

IV. *Roots*.—

- (1) Parts.
- (2) Kinds.
- (3) Uses.

NOTE.—In nearly every advance step in *term* or *classification*, let the specimen be in the pupil's hand. Let a constant *review* be kept up by a description of leaves and flowers previously presented by the pupil, naming the plant described, where known; *e. g.* "The leaf of the elm is ovate, doubly serrate, rough, &c."

PROGRAMME FOR MIXED SCHOOLS.

<i>A. M.</i>	<i>Recitation.</i>	<i>Studies.</i>
9.00	Opening Exercises.	
9.10	General Exercise.	
	Number.	
9.15	Primary Class.....	"A" Arithmetic; 1st, 2d, and 3d Reader.
9.25	First Reader.....	"A" Arith.; Primary Class print; 2d and 3d Reader.
9.35	Second Reader.....	"A" Arith.; 3d Reader.
9.50	Third Reader.....	"A" Arith.; Recess for 2d Reader class.
10.05	"A" Arithmetic.....	"B" Arithmetic; 1st and 2d Reader write numbers.
10.25	Penmanship.	
10.45	Recess.	
11.00	"C" Arithmetic (Oral)..	"A" Geography; "B" Arith.
11.15	"B" Arithmetic.....	"A" Geography.
11.35	Primary Class.....	"A" " Language Class.
11.45	"A" Geography.....	Language Class.
<i>P. M.</i>		
1.00	Language Lesson	State Work for Primary Class; Fourth Reader.
1.15	First Reader.....	State Work for Primary Class; "B" Geog.; 2d Reader.
1.25	Second Reader.....	State Work; "B" Geog.
1.35	Fourth Reader.....	"B" Geography; 1st and 2d Reader draw.
1.55	Primary Class	"B" Geography; Grammar.
2.05	"B" Geography	Grammar.
2.20	History and Constitution.	"B" Spelling.
2.40	Recess.	
2.55	Grammar.....	"B" Spelling.
3.15	"B" Spelling (Oral)....	"A" Spelling.
3.25	"A" Spelling (Written).	2d and 3d Reader classes prepare for general exercise.
3.40	General Exercise :	
	Biography 1 day in each week ; Botany or Physiology, 2 days ; outline maps, 2 days.	

THEORY AND PRACTICE.

Time, 30 minutes daily.

1. Certificate ; contract ; care of school-room ; care of school grounds.
2. Classification. Programme.
3. Seating and movements of classes.
4. Records.
5. Warming and ventilation of school-room.
6. Recitation : (1) objects ; (2) methods ; (3) errors to be corrected ; (4) aid.
7. Study : (1) adaptation to age and mental power ; (2) methods ; (3) incentives to *thought, observation, and study*.
8. Reviews : (1) how often ; (2) of what character ; (3) examinations.
9. Culture in manners and morals.
10. Oral Instruction : (1) when advisable ; (2) subjects thus best taught ; (3) methods best adapted.
11. Government : (1) authority whence derived ; (2) legal and moral aspects ; (3) influence of different modes upon the character of pupil and teacher ; (4) causes of disobedience ; (5) peculiar obstacles and aids ; (6) influence of *enthusiasm, energy, and integrity* in teacher, upon government ; (7) rights and duties of teachers, pupils, parents, and school officers.
12. Manners of teachers in school.
13. Teacher's employment of time out of school : (1) rest ; (2) recreation ; (3) mental and social culture.
14. Care of pupils in regard to food, dress, recreation, sleep, labor.
15. Specific modes of teaching :
 - (1) Reading. Primary, Intermediate.
 - (2) Arithmetic. Primary, Intermediate.
 - (3) Language.
 - (4) Geography. Primary, Higher.

INSTITUTE BLANKS.

(WISCONSIN.)

To be filled by Teachers and those preparing to teach, on becoming Members of Institutes.

-
1. Name in full, _____
 2. Age, _____
 3. Residence, _____
 4. Post-office Address, _____
 5. How many months have you taught? _____
 6. What is the length of time, in months, you have received instruction in

Common Schools.	Graded Schools.	Academies.	Colleges and Universities.	Normal Schools.

7. How many Institutes have you already attended? _____
8. What is the length of time you have heretofore spent in attendance upon Institutes? _____
9. Are you teaching, or do you intend to teach, during any part of the ensuing year? _____
10. Do you hold a Teacher's Certificate? _____ If so, what grade? _____

CHAPTER XLI.

INSTITUTE PROGRAMMES CONTINUED.

6. State of Iowa.—The plan of institute work in Iowa is nearly identical with that in Wisconsin. The State Department of Public Instruction, acting in consultation with county superintendents and others prominently connected with education, prepares, publishes, and distributes a pamphlet containing a programme of exercises and an elaborate syllabus of topics in each of the branches to be taught during the session. The precise work of each day and of each hour of the day is clearly specified, leaving nothing to be provided for on the impulse of the moment. As the result of this careful forethought, the operations of the institute are clearly and sharply defined, leaving no opportunity for that desultory and pointless teaching that yields no valuable result and that is likely to bring the institute into positive disrepute.

Since the identity of plan in these two north-western States is so marked, it has not been deemed necessary to reproduce in full that of Iowa. The programme of daily exercises, the abridged syllabus of topics, an outline of the course in Didactics, and the instructions of the State Superintendent, are, however, submitted for study and comparison.

DIDACTICS.

First Week,—School Organization and Classification.

1. Preparatory work; Certificate, contract, neces-

sity and use of blackboard, dictionary, maps, apparatus, call-bell, thermometer, &c.

2. Organization ; Opening, grading, and classifying mixed schools.

3. Programme of study and recitation.

4. School Regulations; Seating of pupils, movement of classes, recesses, rules, &c.

5. School Records and Reports ; class, deportment, attendance, &c.

Second Week,—School Discipline and General Exercises.

1. Recitations ; Objects and methods, reviews.

2. School Discipline ; Means of securing order and industry.

3. Rewards and Punishments ; Proper and improper.

4. Singing ; Rhetorical and other general exercises.

5. Oral Instruction ; Calisthenics, morals and manners, care of school property, &c.

Third Week,—Methods of Instruction.

1. How to teach reading in primary grades.

2. How to teach reading in intermediate and grammar grades.

3. How to teach spelling and writing.

4. How to teach arithmetic in primary grades.

5. How to teach arithmetic in intermediate grades.

Fourth Week,—Methods of Instruction.

1. How to teach geography.

2. How to teach grammar to beginners.

3. How to teach grammar to advanced pupils.

4. How to teach history.

5. Industrial expositions in the public schools.

COURSE OF STUDY FOR THE NORMAL INSTITUTES,
1874.

The law providing for Normal Institutes, having imposed upon county superintendents additional labors, it was thought best to give special consideration to these Institutes in the recent conventions of county superintendents. At four of the six conventions held in May last, courses of study designed for the Institutes to be held the present year, were prepared by committees, submitted to the conventions and adopted, together with resolutions requesting the Superintendent of Public Instruction to prepare, from them, a course of study suitable for a four weeks' session, for the use of county superintendents and conductors in preparing their schemes of work.

With the aid of these, and such suggestions as I could get from other sources, I have prepared a course of study, and send it out in the hope that it may serve, in some measure, to unify and systemize the work and aid in securing the best possible results from these brief training schools for the present year.

The work here mapped out will require, of both instructors and students, thorough preparation, close study, and hard work. This course of study will, doubtless, need to be modified to meet the wants of different localities, but the amount of work undertaken to meet the present pressing wants of our teachers, will, necessarily, be large in every county. Whenever, in the opinion of the county superintendent, any one of the branches has been sufficiently developed, it may be dropped, and the time thus gained devoted to such part of the work as may be deemed of immediate importance.

The whole plan of work should be arranged before-

hand so that students may be able to prepare for every lesson before going to the class room. Every class exercise should be a *model lesson*, so that methods of teaching shall be constantly illustrated by example.

Provision should be made for one or two lectures per week, and the remainder of the evenings should be devoted to study.

The names of the instructors engaged should be forwarded for approval along with the application for the appointment of the Institute, designating who is to act as *conductor*, whether the county superintendent or another. At the close of the Institute the blank report forwarded from this office, with the appointment and State warrant, should be promptly *filled* and returned.

(Signed)

SUPERINTENDENT OF PUBLIC INSTRUCTION.

SYLLABUS OF COURSE OF STUDY.

DAILY EXERCISES.	FIRST WEEK.	SECOND WEEK.	THIRD WEEK.	FOURTH WEEK.
Orthography— 1st half. Writing— 2d half. 30 minutes.	Class drill in Spelling, Rules for Spelling.	Word Analy- sis, Diction- ary Exer- cises.	Position, Prin- ciples, Move- ments.	Practice Les- sons, Letter Writing, Business Forms.
Reading— 45 minutes.	Classification of Element- ary sounds. Markings of Tonic Ele- ments.	Quality, Force, Stress and Pitch. Class drill.	Quality, Move- ment, Inflec- tion, Circum- flex and Pause. Class Drill.	Melody, Transition, Personation, Position and Gesture. Class drill.
Arithmetic— 45 minutes.	Fundamental Rules and Properties of Numbers.	Fractions— Common and Decimal. Compound Numbers.	Percentage and its Ap- plications. Interest.	Ratio and Pro- portion, Partnership, Involution and Evolu- tion.
Geography— 45 minutes.	General Geog- raphy.	United States, with Special Study of Geography of Iowa.	Remainder of Western Hemisphere.	Eastern Hemi- sphere.
Grammar— 45 minutes.	Language Les- sons, Form- ing and An- alyzing Sim- ple Sen- tences, Rules for the use of Capitals.	Parts of Speech and their Proper- ties.	Inflection of Parts of Speech. Parsing.	Syntax and Composition.
Physiology— 45 minutes.	Bones and Muscles.	Food, Diges- tion and Absorption.	Circulation and Respira- tion.	Nervous Sys- tem and Spe- cial Senses.
History of U.S. 45 minutes.	Discoveries, Claims and Settlements.	French and Indian War. Revolution- ary War.	The Constitu- tional period to 1825.	Recent Events and Consti- tutions.
Didactics— 45 minutes.	School Organi- zation and Classifica- tion.	School Disci- pline and general Ex- ercises.	Methods of In- struction.	Methods of In- struction.

PROGRAMME OF DAILY EXERCISES FOR AN INSTITUTE OF THREE DIVISIONS.

TIME TABLE.	TIME. Minutes.	DIVISION A.	DIVISION B.	DIVISION C.
From 8.15 A.M. to 8.30 A.M.	15	OPENING EXERCISES AND ROLL-CALL.		
From 8.30 A.M. to 9.15 A.M.	45	Arithmetic.	Geography.	Grammar.
From 9.15 A.M. to 10 A.M.	45	Geography.	Grammar.	Arithmetic.
From 10 A.M. to 10.15 A.M.	15	RECESS.		
From 10.15 A.M. to 11 A.M.	45	Grammar.	Arithmetic.	Geography.
From 11 A.M. to 11.45 A.M.	45	Physiology.	Reading.	History.
From 11.45 A.M. to 1 P.M.	75	INTERMISSION.		
From 1 P.M. to 1.45 P.M.	45	Reading.	History.	Physiology.
From 1.45 P.M. to 2.30 P.M.	45	History.	Physiology.	Reading.
From 2.30 P.M. to 2.45 P.M.	15	RECESS.		
From 2.45 P.M. to 3.15 P.M.	30	ORTHOGRAPHY OR WRITING.		
From 3.15 P.M. to 4 P.M.	45	DIDACTICS.		

7. The State of Illinois.—

The theory of this treatise is that the institute should be a school; that, so far as the circumstances will allow it should be a model school in respect to its organization, management, and methods of instruction. It is assumed that its instructors should be persons of recognized ability and fitness for their duties, and that the views and experiences of the members should be drawn out incidentally as a part of the regular exercises under the guidance of the instructors. If this theory be correct, then a self-instructed institute must be comparatively as inefficient as a self-taught school, save the difference in the experience and wisdom of those who compose the former. But the more advanced the learners, the more wise and skillful should be the teachers. It should be the aim of the institute to avail itself of the highest talent and the ripest experience that it can command, in its corps of instructors. Under the guidance of such, it will be more profitable to draw out the views of the members for the benefit of the whole, than to commit the entire work to those who need themselves to be instructed by the highest available talent and skill.

There may, however, be localities where the mutual or monitorial plans may be made practicable and successful. There may be other places in which it will occasionally be impracticable to secure the higher order of talent. Again, in a community where education is far advanced, and where the teachers as a class are highly cultured, the mutual plan can be made eminently useful. As a suggestion in the direction of such a method of conducting an institute, the subjoined programme, prepared for the teachers of Ogle county, Illinois, and kindly furnished by the superintendent, is submitted. It will be seen that the session was but four

PROGRAMME OF DAILY EXERCISES FOR AN INSTITUTE OF THREE DIVISIONS.

TIME TABLE.	TIME. Minutes.	DIVISION A.	DIVISION B.	DIVISION C.
From 8.15 A.M. to 8.30 A.M.	15	OPENING EXERCISES AND ROLL-CALL.		
From 8.30 A.M. to 9.15 A.M.	45	Arithmetic.	Geography.	Grammar.
From 9.15 A.M. to 10 A.M.	45	Geography.	Grammar.	Arithmetic.
From 10 A.M. to 10.15 A.M.	15	RECESS.		
From 10.15 A.M. to 11 A.M.	45	Grammar.	Arithmetic.	Geography.
From 11 A.M. to 11.45 A.M.	45	Physiology.	Reading.	History.
From 11.45 A.M. to 1 P.M.	75	INTERMISSION.		
From 1 P.M. to 1.45 P.M.	45	Reading.	History.	Physiology.
From 1.45 P.M. to 2.30 P.M.	45	History.	Physiology.	Reading.
From 2.30 P.M. to 2.45 P.M.	15	RECESS.		
From 2.45 P.M. to 3.15 P.M.	30	ORTHOGRAPHY OR WRITING.		
From 3.15 P.M. to 4 P.M.	45	DIDACTICS.		

7. The State of Illinois.—

The theory of this treatise is that the institute should be a school; that, so far as the circumstances will allow it should be a model school in respect to its organization, management, and methods of instruction. It is assumed that its instructors should be persons of recognized ability and fitness for their duties, and that the views and experiences of the members should be drawn out incidentally as a part of the regular exercises under the guidance of the instructors. If this theory be correct, then a self-instructed institute must be comparatively as inefficient as a self-taught school, save the difference in the experience and wisdom of those who compose the former. But the more advanced the learners, the more wise and skillful should be the teachers. It should be the aim of the institute to avail itself of the highest talent and the ripest experience that it can command, in its corps of instructors. Under the guidance of such, it will be more profitable to draw out the views of the members for the benefit of the whole, than to commit the entire work to those who need themselves to be instructed by the highest available talent and skill.

There may, however, be localities where the mutual or monitorial plans may be made practicable and successful. There may be other places in which it will occasionally be impracticable to secure the higher order of talent. Again, in a community where education is far advanced, and where the teachers as a class are highly cultured, the mutual plan can be made eminently useful. As a suggestion in the direction of such a method of conducting an institute, the subjoined programme, prepared for the teachers of Ogle county, Illinois, and kindly furnished by the superintendent, is submitted. It will be seen that the session was but four

days long. Up to the present time the State Department of Public Instruction has not exercised direct supervision over the institutes, nor has it prescribed for them a general plan of operations.

In the subjoined programme the initials of names are retained in order to exhibit the plan more clearly.

PROGRAMME OF EXERCISES.

TUESDAY, OCT. 3D.

- 9.00 A. M., Opening exercises: Rev. J. H. 9.15, Business. 9.30, Teacher's First Week in the School-room: P. R. W., L. W., Nellie W. 10.30, Recess. 10.45, Best Methods of Oral Instruction: Miss P. R. C., John M. K., Miss M. W. 11.45, Business.
- 2.00 P. M., Best Methods of Teaching Mental Arithmetic: J. A. H., Mary L. M., D. C. S. 3.00, School Laws: Co. Supt. 3.30, Recess. 3.45, Best Methods of Teaching Beginners to Read: Ada S., Mrs. L. M. G., Ed. E. R. 4.45, Business.

Evening, Lecture: Reformatory Work: George W. P., Principal of Illinois State Reform School.

WEDNESDAY, OCT. 4TH.

- 9.00 A. M., Opening Exercises: Rev. R. P. 9.15, Business. 9.30, Best Methods of Teaching Grammar to Beginners: Misses C. R. V., J. A. B., F. E. H. 10.30, Recess. 10.45, How to Teach Writing: Mary J., M. S. B., Henry Y. 11.45, Business.
- 2.00 P. M., Best Methods of Teaching Composition and Declamation: Sophia M. H., Florence A. B., S. D. F. 3.00, County School Report; Co. Supt. 3.30, Recess. 3.45, Best Methods of Teaching

Spelling: M. L. S., Vernie B., Aggie K. 4.45, Business.

Evening, Lecture: China and the Chinese: W. P. J., President of the North-western Female College.

THURSDAY, OCT. 5TH.

9.00 A. M., Opening Exercises: Rev. P. G. B., 9.15, Business. 9.30, How to use Black-boards and Slates: H. S. W., Laura M., Julia W., 10.30, Recess, 10.45, How to use School Maps: Miss J. F. H., D. S., J. R. L. 11.45, Business.

2.00 P. M., How to use Text-books: A. J. B., J. W. A., Geo. M. N. 3.00, School Work: Co. Supt. 3.30, Recess. 3.45, Moral Instruction in Schools: J. H. F., L. H., R. C. G., 4.45, Business.

Evening, Lecture: Education in China, The Land where none but Graduates hold Office: Pres. W. P. J.

FRIDAY, OCT. 6TH.

9.00 A.M., Opening Exercises: Rev. N. F. R. 9.15, Business. 9.30, How to Use Globes: C. D. M., Addie B., I. D. A. 10.30, Recess. 10.45, How to Teach Physiology to Young Pupils: E. B., Nellie M., Anna M. 11.45, Business.

2.00 P. M., Discussion: *Resolved*, That this State ought to make and enforce a Compulsory Law of Attendance at its Public Schools: (Affirmative) R. B.—(Negative) J. W. G. 3.00, Teacher's Capital Stock in Bank: Co. Supt. 3.30, Business.

Evening, Reading: E. M. B., Professor of Elocution in Chicago Theological Seminary.

The following syllabus of a course at an institute held in Ogle county, in 1873, is suggestive. The session was nearly four weeks in length. The announcement states that :

Some of the best thinkers and workers of this and other counties will be in attendance, and no efforts will be spared to make the drill of the greatest benefit to its members, and through them to the schools of the county at large.

There will be at least two sections of the members (more if necessary), one comprised of those who wish to begin the new branches, and prepare themselves to pass examination in them, and the other of those who wish to consider more thoroughly some of the principal topics of the several branches. Teachers desiring can take part of the work of each section. These sections may be subdivided if the attendance is sufficiently large. The forenoons will be devoted to recitations as last year, the beginning sections following the same programme. The advanced sections will have three recitations each forenoon, and during the session, the following topics will be studied and discussed by them :

GEOGRAPHY.—Day and Night; Seasons; Winds; Ocean Currents.

ARITHMETIC.—Properties of Numbers; Division of Common Fractions; Decimal Fractions; Longitude and Time; Long, Square, and Cubic Measure.

GRAMMAR.—Personal, Relative, and Adjective Pronouns; Transitive and Intransitive Verbs; Infinitive Verb; Signs of Tenses; False Syntax; Rules of Punctuation; Rules of Spelling.

ZOOLOGY.—Differences between Animals and Plants; Classification of Animals, Sponges, Corals, Spiders; Circulation, Respiration, and Digestion of Birds and Reptiles.

PHILOSOPHY.—Specific Gravity; Laws of Motion; Air Pump; Steam Engine; Electricity; Telegraph; Heat; Light; Rainbow.

BOTANY.—Germination of Plants; Food of Plants; Circulation in Plants; Respiration in Plants; Leaf Arrangement; Cryptogamia; Fertilization of Plants; Natural and Artificial Classification of Plants; Botanical Analysis.

PHYSIOLOGY.—Blood; how the Blood gains and loses; workings of the Heart and Vessels; Respiration; Cell Life; Production of Voice; Touch; Taste; and Smell; Hearing; Seeing; Spinal Cord and Brain; Mind and Body.

Teachers intending to enter this advanced section, are requested to study the above topics as much as possible, before the commencement of the drill.

The afternoon sessions will include all of the members, and will be devoted to reviews, examinations, methods of teaching, oral instruction, class exercises by teachers and pupils of the Oregon Public School, discussions of practical school questions, experiments, &c.

More time will be given to the "old branches," and to methods of teaching, than was possible last year.

Teachers should bring a good supply of text-books for study and reference; also foolscap paper, pencils, knives, erasers, dictionaries, Bibles, and a large-sized geography, or atlas, to use while writing.

Arrangements will be made to supply new books at introductory rates to those who desire them.

Assistance will be given teachers in procuring boarding places. Some have already engaged their board at same places as last year. Several, last year, hired rooms and boarded themselves. Assistance will be given to such as desire rooms without board.

All teachers that intend to be present as members, are requested to so inform me as soon as possible, and to be present at the opening of the session.

The membership of this drill will decide whether teachers desire improvement, or circumstances force them to work to be able to pass the examination required by law.

8. The Illinois Teachers' Institute.—In the year 1863, a suggestion was made in favor of a State Institute to be held at the Normal University near Bloomington. A circular was accordingly issued, inviting all who desired, to meet at the University on the 14th of September, for the purpose chiefly of "thorough drill in the philosophy and methods of teaching the common branches of study." About fifteen teachers assembled under this call, and an institute of four weeks was held.

At the tenth annual meeting of the Illinois State Teachers' Association, resolutions were passed in favor of an institute at the Normal University during the month of August. A circular was issued May 1st, proposing such a meeting, provided that seventy-five teachers would pledge themselves to attend. More than the requisite number of names having been obtained, the institute met August 1st, 1864. One hundred and twenty-seven teachers were in attendance. The next session was held in 1867, when two hundred and fifty-five members were present. In August, 1868, a session of two weeks was held, with two hundred and forty-eight members. In 1869 the attendance was 291; in 1870, it was 242; in 1871, 215, and in 1872, 300. The interest in these State gatherings was maintained from year to year, and they were productive of great good to the cause of education.

We subjoin a copy of the constitution, in the belief that it may encourage similar organizations in other States.

CONSTITUTION.

ARTICLE 1. This Association shall be known as THE ILLINOIS TEACHERS' INSTITUTE.

ART. 2. The object of the Institute shall be the improvement of its members in the Science and Art of Teaching.

ART. 3. All School Officers, Teachers, and those proposing to teach, that are in good standing, shall be entitled to membership.

ART. 4. The officers shall consist of a President, one Vice-President for each Congressional District in the State, a Secretary, an Assistant Secretary, and a Treasurer, who shall hold their offices for one year, or until their successors shall be elected; and these officers, together with the State Superintendent of Public Instruction, shall constitute an Executive Committee.

ART. 5. It shall be the duty of the President to preside over the meetings of the Institute, and to call meetings of the same at the request of the Executive Committee.

ART. 6. In the absence of the President, it shall be the duty of the senior Vice-President in attendance to preside.

ART. 7. It shall be the duty of the Secretary to keep a record of the proceedings of the Institute.

ART. 8. It shall be the duty of the Treasurer to receive and disburse all funds, under the direction of the Executive Committee.

ART. 9. It shall be the duty of the Executive Committee to determine the time of holding the sessions of the Institute, and to make all necessary arrangements for conducting them.

ART. 10. The sessions of the Institute shall be held at the Normal University.

ART. 11. This Constitution may be altered or amended at any regular session, by a majority vote.

SUMMARY OF CHAPTERS XL. AND XLI. 9

INSTITUTE PROGRAMMES AND COURSES OF INSTRUCTION.

(1) Preliminary observations; (2) Value of Programmes, as records of experience; (3) Organization of institute work in the several States, necessary to its highest success; examples of Wisconsin and Iowa; (4) State of New Hampshire; order of exercises presented; (5) State of Wisconsin; programme for an institute of two weeks; suggestions to conductors of institutes; schedule of daily work for a four weeks' session; Syllabus of course in Reading; in Arithmetic; in Geography; in Orthography; in Penmanship; in Drawing; in Grammar; in History; in Civil Government; in Algebra; in Geometry; in Botany; Programme of exercises for mixed schools; theory and practice of teaching; Institute blanks; (6) State of Iowa; Course of study for Normal institutes; Syllabus for four weeks; Programme of daily exercises; Course in Didactics for four weeks; (7) State of Illinois; Programme of exercises for institute of four days; Syllabus of course of four weeks; (8) Illinois State teachers' institute; brief history; constitution.

CHAPTER XLII.

INSTITUTE LEGISLATION.

1. General Observations.—The teachers' institutes are generally recognized by educators as an indispensable agency in the improvement of our elementary schools. Legal provision has been made in many of the States for their establishment and support. It is important that similar provision should be made wherever it is expected that education is to be efficiently promoted. To facilitate such legislation where it is needed, and to supply the means of comparison where institute laws already

exist, the enactments of several of the leading States, in this work, are herewith submitted. In view of the rapid development of the system during the past thirty years, and of its adaptation to meet a pressing necessity in the work of improving the great mass of teachers, it can not be doubted that its universal adoption is merely a question of time. The information supplied by these various legislative acts will be valuable in furnishing the experience of localities that have been for many years engaged in the promotion of education. Attention is especially called to the different methods of providing for the support of the institutes. These methods may be referred to three classes: . . .

(1.) Direct appropriations from the State Treasury.
(2.) Appropriations from the income of permanent funds, as in Wisconsin. (3.) Appropriations from special funds created by levying a tax upon teachers' certificates, as in the cases of Ohio and Iowa. Much may be said in favor of each of these plans. Where permanent funds exist like the munificent Normal School endowment in Wisconsin, the problem of institute organization and instruction is one of easy solution, since the labor and embarrassment of wringing annual appropriations from unwilling legislatures are avoided. Nevertheless, it is well worthy of consideration whether the labor and discussion necessary to secure favorable action in such cases are not educating forces tending to raise the community to a higher appreciation of its duty in connection with the great work. There is an education of the people no less important than the education of the children, and little can be accomplished for the latter without the former. If it be the duty of the State to establish and support schools for the education of the children, it is no less its duty to provide efficiently for the prepara-

tion of qualified teachers, in the absence of which the schools must be a failure.

The principle of taxing the teacher for his own professional advantage is undoubtedly sound and just. It is submitted whether a union of the two methods would not prove to be a salutary measure. The appropriations by the State will tend to foster and keep alive the public interest. The taxation of the teacher for this specific purpose will create a desire on his part to secure a legitimate return from his investment, while the two funds united will make a generous policy in procuring adequate instruction for the institute, possible.

CHAPTER XLIII.

INSTITUTE LEGISLATION CONTINUED.

2. Laws of New York.—This may be called the Pioneer State in the institute work. She has been engaged in it for more than thirty years. Her laws regulating the subject may be regarded as embodying the results of an extended and successful experience. In order to a proper understanding of the terms of the subjoined act, it may be well to explain that in lieu of a superintendent in each county there is a commissioner in each assembly district, of which there are one hundred and twenty-eight in the State. No other State, probably, is supplied with so effective a system of school supervision as New York. The number of representative districts is more than twice the number of counties, so that the territory to be traversed by each commissioner is com

paratively limited, and he is enabled to do his work thoroughly and well.

Particular attention is invited to the incentives to attendance upon the institutes provided for in the law of New York.

TEACHERS' INSTITUTES.

§ 1. It shall be the duty of every school commissioner, at least once in each year, in his own district, or in concert with one or more commissioners in the same county, to organize in and for the combined districts, a teachers' institute, and to induce, if possible, all the teachers in his district to be present and take part in its exercises.

§ 2. The commissioner or commissioners, subject always to the advice and direction of the Superintendent of Public Instruction, shall, in such form and manner as may be deemed most effectual, give public notice to the teachers of the district, or combined districts, and to all others who may desire to become such, of the time when and the place where the institute will be organized.

§ 3. The Superintendent of Public Instruction shall advise and co-operate with the school commissioners in fixing the times and places of holding the teachers' institute; and he shall have power to employ, or cause the school commissioners to employ, suitable persons, at a reasonable compensation, to conduct and teach the institutes; and he shall visit, or cause to be visited by persons employed in the department of public instruction, such and so many of the institutes as he possibly can, for the purpose of examining into the course and manner of instruction pursued, and of rendering such assistance as he may find expedient; and he shall

establish the bases upon which the yearly appropriation for the support of teachers' institutes shall be distributed to the several institutes, and term or terms during which the same may be held, having reference, in the establishment of such regulations, to the number of teachers in the county, district or combined districts, and in attendance at the institute; to the length of time during which they shall be held; to the facilities for attendance upon them; and to local disadvantages requiring especial consideration.

§ 4. The superintendent of public instruction may establish such regulations in regard to certificates of qualification or recommendation, which may be issued by school commissioners, as will in his judgment furnish incentives and encouragement to teachers to attend the institutes; and the closing of his school by a teacher for the time during which an institute shall be held in and for the county or school commissioner district in which his school is, and which institute he shall have attended during the time for which he closed his school, shall not work a forfeiture of the contract under which he is teaching; and he shall be allowed to make up for the time spent in attending the institute, by teaching the school the same length of time immediately at the end of the term for which he contracted to teach.

§ 5. The trustees of every school district are hereby directed to give to the teacher or teachers employed by them the whole of the time spent by such teacher or teachers in attending at any regular session or sessions of an institute in a county embracing the school district, or a part thereof, without deducting anything from his or their wages for the time so spent; and whenever the trustees' report shows that a district school has been supported for the full time required by

law, including the time spent by the teacher or teachers in their employ in attendance upon such institute, and that the trustees have given the teacher or teachers the time of such absence, and have not deducted anything from his or their wages on account thereof, the superintendent of public instruction may include the district in his apportionment of the State school moneys, and direct that it be included by the school commissioner or commissioners in their apportionment of school moneys, provided always that such school district be in all other respects entitled to be included in such apportionment.

§ 6. The treasurer shall pay, on the warrant of the comptroller, to the order of any one or more of the school commissioners, such sum or sums of money as the superintendent of public instruction shall certify to be due to them for expenses in holding a teachers' institute; and, upon the like warrant and certificate, to the order of any persons employed by the superintendent to conduct and teach any teachers' institute, his reasonable compensation as certified by the superintendent.

§ 7. The school commissioner or commissioners by whom any teachers' institute shall be organized, shall transmit to the superintendent of public instruction a catalogue of the names of all persons that shall have attended such institute, with such other statistical information, in such form and within such time, as may be prescribed by said superintendent.

CHAPTER XLIV.

INSTITUTE LEGISLATION CONTINUED.

3. Laws of Wisconsin.

§ 40. The board of regents of normal schools are authorized to use so much of the income of the Normal School fund, not exceeding five thousand dollars per annum, as in their judgment may be necessary to defray the expenses of conducting teachers' institutes in different parts of the State; and such amount as the board may from time to time expend for such object is hereby appropriated from said income, and shall be drawn from the state treasury in the same manner and under the same restrictions as money for the support of the State Normal Schools.

§ 41. It shall be the duty of said board, in the discharge of the duties imposed by this act in providing for holding teachers' institutes, to give the preference to those sections of the State that receive least direct benefit from the State Normal Schools.

§ 42. The said board, in order to carry out the object of this act, shall have power to make such rules and regulations as they may deem proper, and employ an agent who shall organize and conduct teachers' institutes, deliver educational addresses, and perform such other work as the board may require him to do in connection with the State Normal Schools, and who shall, if the said board choose, act as their secretary. The said board may also employ other persons to aid in conducting teachers' institutes; but no person employed by said

board in any position or capacity connected with normal schools or teachers' institutes, shall act as the agent of any author, bookseller, or publisher.

§ 43. The district board of any school district are hereby authorized in their discretion to give to the teachers employed by them the whole or any part of the time spent by such teacher or teachers in attending any regular session or sessions of an institute in the county embracing the school district or any part thereof, without deducting anything from his or their wages for the time so spent : *provided*, such teacher or teachers shall furnish to the clerk of the district a certificate of regular attendance at such institute, signed by the person conducting the same ; and whenever the report of the district clerk shows that the district school has been supported for the full term of five months required by law, including the time spent by the teacher or teachers in their employ in attendance at such institute, and that the district board have given to the teacher or teachers the time of such absence, and have not deducted from his or their wages for the time so spent, such district shall be included in the annual apportionment of the income of the school fund : *provided always*, that such school district shall have complied with the laws in all other respects, and is entitled to share in such apportionment.

§ 44. It shall be the duty of the said board to co-operate with the superintendent of public instruction, so far as practicable, in holding and conducting teachers' institutes, as provided for by this act.

§ 45. All other acts and amendments thereto, shall be so construed as to enable the said board to carry out the provisions of this act, and all acts or parts of acts conflicting with this act are hereby repealed.

NORMAL-INSTITUTES

(Chapter 18, *General Laws of 1871.*)

§ 1. Normal institutes for the instruction of teachers shall be held each year in such counties of the State as may be designated by the State Superintendent, with the advice of the board of regents of normal schools, preference being given to such counties as receive least direct benefits from the normal schools.

§ 2. Each of said institutes shall be held for at least four consecutive weeks, under the direction of the county superintendent, assisted by such person or persons as the State Superintendent may appoint.

§ 3. The course of study pursued in said institutes shall, as far as practicable, be uniform, and shall be prescribed by the school superintendents of the counties in which said institutes are held, with the advice and approval of the State Superintendent.

§ 4. There is hereby appropriated out of any money in the State treasury not otherwise appropriated, a sum not exceeding two thousand dollars per annum, for the purpose of carrying out the provisions of this act, the same to be expended under the direction of the State Superintendent and the board of regents of normal schools.

§ 5. All acts and parts of acts contravening the provisions of this act are hereby repealed.

The subjoined excellent suggestions to county superintendents concerning the management of institutes are from the volume containing the school laws prepared under the direction of the State Superintendent of Public Instruction :

It is made the duty of the superintendent to hold

institutes, and at least one should be held each year. Such preparation should be made as will secure a prompt and general attendance. A suitable room, well ventilated, properly warmed, and furnished with desks, black-board, &c., is indispensable. By proper effort, the co-operation of the people in the vicinity of the place where the institute is held, may be secured. Care should be taken not to tax the hospitality of the people for the benefit of those not engaged in teaching. In some instances, persons not interested in the objects of an institute attend it, for the purpose of enjoying, free of expense, the novelty of a visit to the town in which it is held.

The notice for the institute should suggest to teachers the necessity of bringing with them paper, pencils, note books and such school books as may be required.

Arrangements should be made for addresses, and if the superintendent deems it advisable, some prominent teachers may be secured to conduct the institute exercises. For a few years past the board of normal regents has granted aid to institutes out of the income of the normal school fund. If preferred, an agent is furnished to conduct the institute. The law regulating this matter will be found on a subsequent page..

The programme should, if practicable, be published with the notice, and should be strictly adhered to during the time the institute is held. A portion of each session should be devoted to discussion, and the superintendent should be prepared to answer such questions in regard to the school law, and school matters generally, as the teachers may wish to ask. Punctuality, regularity and good order should be maintained, and an effort should be made to render the institute a model school in its methods of recitation, instruction, and general arrangement and management.

The county superintendent should preside, a secretary and business committee should be appointed, and in all respects the institute should be a well-ordered and business-like body, diligently doing its appointed work. No time should be frittered away in excursions, pic-nics, or parties.

Particular attention is called to the act of 1872, providing for normal institutes of four or more weeks' duration. This act is printed on a subsequent page, at the close of the laws relating to normals schools.

4. Laws of Connecticut.—In a brief sketch of the history of the legislation of the State in regard to education, published by authority of the General Assembly in 1872, the following paragraph occurs:

"In 1847, a resolution was passed directing the Superintendent of Common Schools to employ four or more suitable persons to hold 'schools of teachers for the purpose of instruction in the best modes of governing and teaching common schools, between the 15th of September and 31st of October of that year.' In 1848 this provision was slightly changed and made permanent."

The revised school law of Connecticut, chapter II., relating to the State Board of Education, contains the subjoined section:

§ 19. The board may hold, at one or more convenient places in the State, conventions of school officers, teachers, and other friends of public education, for the purpose of instructing in the best modes of administering, governing, and teaching public schools; but the expenses incurred for such conventions shall not exceed in any one year the sum of three thousand dollars.

CHAPTER XLV.

INSTITUTE LEGISLATION CONTINUED.

5. Laws of Ohio.—

TEACHERS' INSTITUTES.—COUNTY INSTITUTES.

§ 112. In every county of this State, in which an association of teachers of common schools, called a teachers' institute, has been or may hereafter be formed, the treasurer of said county is hereby required to pay over to the committee of said institute, upon the order of the county auditor, such sum of money belonging to the fund arising from the means and sources as provided in the ninety-first, one hundred and first, and one hundred and eighteenth sections of this act, as may not have been previously appropriated; and it shall be the duty of the said committee of every such teachers' institute to report, within thirty days after every meeting of the same, to the State commissioners of common schools, the number of teachers in attendance, the names of the instructors and lecturers, an account of the moneys received and expended by them, and such other information relating to the institute as the said commissioner may require. Provided, that no part of the said moneys shall be ordered by the county auditor to be paid over, except upon the petition of at least thirty practical teachers, residents of the county, who shall therein declare their intention to attend such institute, nor until the said committee shall file with the said auditor their bond, in double the amount of moneys to come into their hands, payable to the State of Ohio, for the use of the teachers'

institute of said county, with sufficient sureties, to be approved by said auditor, conditioned for the faithful disbursement of said moneys, and that said committee shall make the report to the State school commissioner as hereinbefore provided ; and in case the said committee shall fail to make said report as hereinbefore provided, they shall forfeit and pay to the State of Ohio the sum of fifty dollars for such failure, to be recovered in an action on said bond as hereinafter provided ; and on forfeiture of such bond, it shall be the duty of the prosecuting attorney of the proper county, in the name of the State of Ohio, to prosecute an action upon such bond and collect any such moneys which said committee may have failed to disburse according to law, or any penalty to which they may be liable under this act, or both, and pay the same into the county treasury for the use of such institute.

§ 113. No institute held under the provisions of this act, shall continue for a period of time less than four days.

§ 114. Whenever there shall have been no teachers' institute held within two years in any county, the State commissioner of common schools may hold, or cause to be held in such county, a teachers' institute, and is authorized to defray the expenses of said institute out of the county institute fund, and the county auditor shall draw an order on the treasurer in favor of the committee chosen at such institute, said committee giving the same bond as required in this act.

§ 115. The clerk of the board of education of a city district of the first class shall make the same report of any teachers' institute provided for by the board of education as is required of county teachers' institutes.

§ 116. Each teacher employed in the common

schools of this State, shall have a right to dismiss his or her school without forfeiture of pay, on New Year's day, Fourth of July, Christmas, and on any day set apart by proclamation of the President of the United States, or the Governor of Ohio, as a thanksgiving or fast day.

§ 117. Any teacher in any public school is hereby authorized to dismiss the school in his or her charge for the week in which is held the county teachers' institute, for the purpose of attending the same, and such teacher shall not forfeit his or her pay for such week; provided, such teacher shall deposit with the clerk of the board a certificate from the secretary of the institute that he or she has been present at such institute for not less than four days; provided, that this privilege is not extended to teachers in city districts of the first class without the consent of the board of education thereof, and that no union or graded school shall be dismissed except when a majority of the teachers in such school are in favor of such dismission.

CITY INSTITUTES.

§ 118. The board of education of any city district of the first class are authorized to provide for holding yearly an institute for the improvement of the teachers of the schools under their control, which institute shall continue not less than four days, and the board are hereby authorized in defraying the expenses of such institute to use the city institute fund arising from the examination fees of teachers, or any other moneys under their control; provided, that if said board shall not hold one institute in any school year, that said board shall cause an order to be issued on the treasurer in favor of the county treasurer for such institute fund, which the county treasurer shall place to the credit of the county

institute fund, in which case the teachers of such city district shall be entitled to the advantages of the county institute.

§ 119. Whenever a teachers' association, formed for the professional improvement of the teachers of several adjacent counties, shall organize a teachers' institute for the specific purpose of providing for the professional instruction of the teachers of the graded schools in such adjacent counties, any and all boards of education of city districts of the first and second class, village districts, and special districts within said counties shall have power to contribute to such institutes from the institute and other funds under their control, and to permit the teachers employed by them to attend the same for one week without forfeiture of wages.

§ 90, 91, and 101 of the Ohio school code specify the mode in which the funds for the support of institutes shall be raised, and are herewith presented :

§ 90. It shall be the duty of the examiners to fix upon the time of holding the meetings for the examinations of teachers, in such places in their respective counties as will, in their opinion, best accommodate the greatest number of candidates for examination, notice of all such meetings being published in some newspaper of general circulation in their respective counties; and at such meetings any two of said board shall be competent to examine applicants and grant certificates; and as a condition of examination, each applicant for a certificate shall pay the board of examiners a fee of fifty cents.

§ 91. All such fees received by the examiners shall be paid over quarterly to the county treasurer, with a statement made to the auditor of the number of applicants, male and female, examined; and all moneys so paid over to the county treasurer by the board of

examiners, shall, after paying, on the order of the county auditor, the necessary traveling expenses of said examiners, which, in no quarter, shall exceed one third the amount so paid to the county treasurer as examination fees, be set apart as a fund for the support of teachers' institutes, as hereafter provided in this act, and shall be used for no other purpose; provided, that the number of meetings held by said board of examiners for the examination of teachers, shall not, in any one year, exceed eighteen.

§ 101. The powers and privileges herein granted to city districts of the first class, with reference to boards of examiners, are hereby extended to city districts of the second class and village districts having a population not less than twenty-five hundred; provided, that the board of examiners in such districts shall consist of three members; and provided further, that in any city districts of the second class, and in village districts (except in those localities where associations have been or may hereafter be formed as provided for in section 119 of this act), the fee of fifty cents which is required to be paid to the board of examiners by every person applying for a certificate to teach, shall be paid by said examiners to the county treasurer for the use of county institutes, and be paid out as other funds for the same purpose are ordered to be paid. The boards of education of said city districts of the second class, in the matter of attaching the annexed territory for voting purposes, shall be governed by the provisions of this act conferring like powers upon city boards of education of the first class, as provided for in section ten.

6. Laws of Iowa. Suggestions of the Superintendent of Public Instruction.—The subjoined act of the Legislature of Iowa, passed in 1874, will be

found of interest. The suggestions of the Department of Public Instruction growing out of this legislation possess a permanent value, and are inserted by permission of the State superintendent.

§ 1. *Be it enacted by the General Assembly of the State of Iowa*, That Section 1769, Code, is hereby amended to read as follows: The county superintendent shall hold annually a normal institute for the instruction of teachers and those who may desire to teach, and with the concurrence of the superintendent of public instruction, procure such assistance as may be necessary to conduct the same, at such time as the schools in the county are generally closed. To defray the expenses of said institute, he shall require the payment of a fee of one dollar for every certificate issued; also the payment of one dollar registration fee for each person attending the normal institute. He shall, monthly, and at the close of each institute, transmit to the county treasurer all moneys so received, including the State appropriation for institutes, to be designated the "institute fund;" together with a report of the name of each person so contributing, and the amount. The board of supervisors may appropriate such additional sum as may by them be deemed necessary for the further support of such institute. All disbursements of the institute fund shall be upon the order of the county superintendent; and no order shall be drawn except for bills presented to the county superintendent, and approved by him, for services rendered or expenses incurred in connection with the normal institute.

§ 2. This act being deemed of immediate importance, shall be in force and take effect immediately after its publication in the "Daily State Register" and "State Leader," newspapers published at Des Moines.

Please note the following suggestions and explanations:

1. Superintendents will be governed by the provisions of this law in the issuing of teachers' certificates, by requiring in all cases the payment of a fee of one dollar before issuing a teachers' certificate after the first day of April, when the law took effect by publication.

2. It is suggested that superintendents transmit to the county treasurer *on the last day of each month*, all moneys received by virtue of this law, to be accompanied by a carefully prepared report, upon blanks which will be sent from this office. This report will be a protection against all imputations of the improper use, or the retention of any portion, of this fund by county superintendents.

3. The law requires that the institute shall be held at such time as the schools of the county are generally closed. This will make it necessary to hold them during the summer vacations. July, August, and September are the most favorable months, except in those counties where the schools do not, generally, commence until October and November. As to the practicability of securing the attendance of teachers at this busy season of the year, it is, perhaps, sufficient to say that, during the year 1873, such institutes were held in not less than fourteen counties in the State, remaining in session from three to eight weeks, and, when properly advertised and managed, there was no lack of attendance. The provision for holding them at times when the schools are generally closed, will obviate the greatest objection that has ever been urged against institutes.

4. Attendance upon the normal institute will be voluntary on the part of teachers; but young and inexperienced teachers will not expect to receive certificates, unless of

the lowest grade; without regularly attending the normal institute. By means of the larger fund, and the greater length of time, during which this institute will remain in session, it can, if the proper means are employed, be rendered invaluable to teachers. The benefits which they will receive will secure their voluntary and general attendance. Any schools that may be in session during the normal institute will not be closed, except upon the order of the board of directors thereof.

5. The normal institutes will take the place of the teachers' institutes held under previous laws. It must be borne in mind, however, that in order to secure the fifty dollar State appropriation, application must be made in regular form to the superintendent of public instruction, as it can only be drawn from the State treasury in strict conformity with the provisions of section 1584, Code; see notes (A) and (B) to section 1762, School Laws 1873, viz., When the superintendent of public instruction appoints the institute on application of the county superintendent. In counties where teachers' institutes have already been held for 1874, it will be optional with the county superintendent whether or not a normal institute will be held the present year. It will not, generally, be advisable, as no further State appropriation can be secured for this purpose.

6. The length of time during which the normal institute shall remain in session, is left to the discretion of the county superintendent. This will depend largely upon the amount of the institute fund. It is estimated that the average to a county, exclusive of what the board of supervisors may allow, will, after the present year, be about three hundred dollars. The institute can not remain in session less than one week of six days. Sec. 1584. In most counties a session of three, four, or five

weeks may be safely undertaken for the present year. It will not be best to undertake too much at first.

7. The law requires superintendents, *with the concurrence of the superintendent of public instruction*, to procure such assistance as may be necessary to conduct the same. It is expected that superintendents will select their own conductors and teachers, as far as practicable, and send the names to this office for examination and approval. Ordinarily, three or four instructors should be secured, all of whom should be superior teachers of recent experience. One of whom, at least, should have had experience in institute work, and be able to give plain, practical instruction in methods of school organization and government, and theory and practice in teaching. The best results are usually secured by dividing the institute into three or more divisions for instruction in the several branches, leaving a portion of the time for general instruction before the whole institute. The teaching must be done, principally, by home talent. In nearly every county, superintendents, principals, and teachers can be secured, that are well qualified to do this work successfully. One or more lady teachers should be secured, where it is practicable.

8. The superintendent may assume the general management of the institute, and act as conductor, assigning others their work, or may select another to act as conductor and take the place of teacher, or may simply assume the general oversight and direction. In no case will the superintendent receive for any service in connection with the institute any portion of the institute fund as compensation. He is entitled to his *per diem* for all time spent in connection with the institute.

9. For 1874, the institute fund will not be more than half as large as on any subsequent year, and it is sug-

gested that application be made to boards of supervisors as early as their June meeting, to make a small appropriation for this year, at least, to inaugurate the normal institute; another year the need for it will not be so great. An appropriation of from one to three hundred dollars will, ordinarily, be sufficient. It will be proper to use the fund for payment of fuel, stationery, &c., and for rent of rooms, when the superintendent is not able to secure the rooms gratuitously.

10. The greater portion of the fund is contributed by teachers themselves. It is believed they will contribute this amount willingly, as it is but a nominal sum, not exceeding two dollars a year from any teacher, and is all expended for their own instruction and the elevation of the profession. They will, in fact, very soon be more than repaid in the increased wages given for better teaching. If this sum is wisely invested, the State will soon duplicate every dollar paid by the teacher. The use of the institute fund is left almost wholly to the judgment of the county superintendent. Let it be economically and judiciously expended; for this, the people and especially the teachers, will hold him accountable.

11. These normal institutes are meant to be short training schools; their object is to reach and correct the greatest defects found in the schools. The superintendent, as he visits schools, consults with patrons and examines teachers, should carefully note the defects, the errors, and the neglects, which are observable, and seek to provide such instruction in the institute as will cure the greatest and most prevalent. Do not permit time to be spent in useless discussions, the advocacy of fine-spun theories, or special hobbies. Conduct the institute for the benefit of the lower grades of teachers, and the higher will always receive their due share of the benefits.

Bear in mind that the great object is to instruct teachers *how to teach children*. Let superintendents commence at once preparations for the institute of 1874. Secure the requisite instructors early. Prepare for not less, in any case, than half the teachers in your counties, and secure a larger attendance if possible. Attention is called to remarks under "Teachers' Institutes" and "Normal Institutes," in the last report from this department.

12. Section 1769 of the school laws of 1873, and of the code, is wholly repealed. The repeal of this section, however, does not prohibit the superintendent from holding examinations on other days of the month. *He shall examine at the county seat*, on the last Saturday of each month, all persons applying, and may examine at such other times and places as the interests of the schools require and his other duties will permit. Examinations, other than on the last Saturday of each month, should not generally be encouraged, except in cases where appointments are made for different portions of the county for the convenience of teachers. For all examinations, he is entitled simply to his *per diem*. While the fees heretofore received for examinations were, to some superintendents, a source of considerable revenue, probably little, if any; less will be received under the present law for the same service, and one of the sources of complaint of partiality in issuing certificates is removed.

The duties of the office are enlarged; its influence and value are increased. Let these duties be faithfully performed during the next two years, and it will not be difficult to secure for the office a salary commensurate with its real value.

7. Laws of Pennsylvania.—The following are

the sections of the school law of Pennsylvania bearing upon Teachers Institutes:

“§ 137. That the county superintendent of each county in this commonwealth is hereby authorized and required once in each year, at such time and place as he or a properly authorized committee of teachers acting with him, may deem most convenient, to call upon and invite the teachers of the common schools and other institutions of learning in his county, to assemble together and organize themselves into a teachers' institute, to be devoted to the improvement of teachers in the science and art of education, to continue in session at least five days, including a half day for going to, and a half day for returning from, the place of meeting of the said institute, and to be presided over by the county superintendent or by some one designated by him, and be subject in its general management to his control.”

“§ 138. That each county superintendent, upon the assembling of the teachers' institute of his county, shall cause a roll of members to be prepared, which roll shall be called at least twice every day during the session of the institute, and all absentees to be carefully marked, and from which, upon adjournment of the institute, he shall ascertain the exact number of teachers who were in attendance, and the length of time each attended; and upon the presentation of a certificate at the close of the session of each annual institute, setting forth these facts and signed by the county superintendent, to the treasurer of the proper county, he is hereby authorized and required to pay immediately, out of any money in the county treasury not otherwise appropriated, to the county superintendent, one dollar for every three days spent by teachers of the county in attendance at the institute for that year, or as much of it as may be needed;

such money to be expended by the county superintendent in procuring the services of lecturers and instructors for the institute, and in providing the necessary apparatus, books, and stationery for carrying on its work ;

“Provided, that the amount which may be drawn from the county treasury shall in no case be more than two hundred dollars, but may in all cases be sixty dollars ; if it shall appear from the vouchers presented by the county superintendent to the county auditors, as required by the fourth section of this act, that this sum has been actually expended for the purpose herein specified ; Provided further, That all boards of directors may allow the teachers in their employ the privilege of attending such institutes without making any deduction from their salaries, and that any teacher who absents himself from the institute of his county without a good reason, may have his want of professional spirit and zeal indicated by a lower mark on his certificate in the practice of teaching, than he would otherwise have received.”

“§ 139. That each county superintendent who may draw money from the county treasury for the purposes named in this act, shall file his account of all expenditures under the act in the office of the county treasury, with vouchers for the same, which shall be examined by the auditors of the county in like manner as other county expenditures ; and any misapplication of funds shall be punished in the same manner as collectors of State and county taxes for like offenses are now punished.”

“§ 140. That all county superintendents, upon the adjournment of the teachers' institutes held in their respective counties are hereby required to report to the superintendent of common schools, the number of teachers in attendance, the names of the lecturers or instructors who officiated, the subjects upon which the

instruction was given, and the degree of popular interest awakened by the proceedings."

Eleven counties in Pennsylvania have special laws compelling boards of directors to grant their teachers the time to attend the county institute without reducing their salaries.

8. Laws of New Hampshire.

TEACHERS' INSTITUTES are provided for by the act of July 3, 1861, as follows :

Be it enacted by the Senate and House of Representatives in General Court convened:

§ 1. There shall be held annually, in each county, under the supervision of the State Superintendent of public instruction, a teachers' institute.

§ 2. To defray the necessary expenses and charges, and to procure teachers and lecturers, for such institutes, the governor may draw his warrant upon the treasurer for a sum not exceeding three thousand dollars per annum.

§ 3. The said superintendent, by himself, or by such person as he may, with the consent of the board of education, delegate, shall appoint and give notice of a time and place for the meeting of such institute, and make suitable arrangements therefor.

§ 4. The said superintendent may, with the advice and consent of the board of education, determine the length of time during which a teacher's institute shall remain in session, which in no instance shall be less than eight days, and what portion, not exceeding three hundred dollars, of the sum provided for in the second section of this act, shall be appropriated to meet the expenses of any such institute, and the governor may draw upon the treasurer therefor, in favor of the said superintendent or other person delegated as aforesaid,

his account having been previously approved by the board of education.

§ 5. All acts and parts of acts inconsistent with this act are hereby repealed.

SUMMARY OF CHAPTERS XLII. TO XLV.

INSTITUTE LEGISLATION.

(1). General observations, financial provisions; (2) Laws of New York; (3) Laws of Wisconsin; Normal institutes; suggestions to County Superintendents; (4) Laws of Connecticut; (5) Laws of Ohio; (6) Laws of Iowa; suggestions of State Superintendent; (7) Laws of Pennsylvania; (8) Laws of New Hampshire.

CHAPTER XLVI.

RELATIONS OF NORMAL SCHOOLS, INSTITUTES, AND SUPERVISION TO THE COMMON SCHOOLS.

1. Necessity of Improving the Common Schools.—In the preceding pages, great stress has been placed upon the importance of improving the condition of the common schools, particularly in the rural districts. It has been claimed that through them principally is it possible to reach the great mass of the people and bring them under the sway of educational influences. It has been affirmed that this agency should be established and perfected wherever, in our vastly extended country, there are rational beings to be trained to the duties of a responsible and noble citizenship. It has further been assumed that the principal factor in the work of reform and progress is the *teacher*; that *it is the*

teacher that makes the school, and as a general rule, the *careful special training that makes the teacher*. This truth is regarded in all well-informed quarters as self-evident, as an educational axiom, requiring no demonstration. Attention has been called to the fact that, to establish a system of schools, to create vast school funds, to build school houses, and then to send the children of the people to be taught by half-educated, unskillful, incompetent instructors, is a species of wastefulness not to say of folly, that would be tolerated in none of the material enterprises of life, where wealth is to be acquired by *an intelligent adaptation of means to ends*. The evils and dangers of this policy are the more aggravated on account of the peculiar character of the results that accrue from bad teaching. They do not at once appear. They are masked from common observation, while their subtle influences are at work slowly but surely undermining the character and blighting the prospects of our children and youth, until it is too late to apply a remedy. Neither good nor bad teaching yields an immediate material product by which its *quality* may be made evident to ordinary observation. Only the instinct of a true moral penetration, re-enforced by a keen intellectual perception can at once discover the good or evil tendencies of teaching. Error as well as truth may be taught at school. The mind and character may be injured by a bad method as well as benefited and blessed by a good one. These are truths of momentous importance, and they should be made as familiar to all, parents, teachers, legislators, and statesmen, as household words. We can not insist too strongly upon *quality* as well as quantity in providing ways and means for promoting the right education of our children and youth.

While we are accustomed to regard the common

school as the corner-stone of our civil and religious liberty, we must not fail to remember that the teacher is the corner-stone of the common school. If, therefore, the teacher be a failure, the school must be a failure, and its baleful influences must strike a fatal blow at the very life and prosperity of society.

The foregoing considerations prepare the way for discussing the outline of a complete system of means and agencies deemed essential to secure to the whole people such an education as the exigencies of the individual and of society alike demand. It is claimed that such a system should embrace :

1. A well organized, well equipped and thoroughly instructed common school within reach of every family, and extending its blessings freely to every child in the republic.

2. A wise, liberal, and just scheme of finance, by means of which the entire system shall be adequately supported from year to year for not less than nine months.

3. A complete and comprehensive system of Normal Schools or Teachers' Seminaries, capable of supplying every neighborhood with a well-educated, carefully-trained teacher, and every city and county with an able and efficient superintendent.

4. A thoroughly organized system of Teachers' Institutes in every State, penetrating every county, reaching with its benign influences every teacher, and so far as possible, arousing the whole people to a deeper sense of their obligations and duties to the cause of education, and the proper training of their children for the realities of life.

5. A thoroughly efficient plan of supervision, by means of which every school shall be visited, carefully inspected and examined, not less than twice in each year,

to the end that its defects may be discovered, pointed out, and remedied.

6. A high-toned and universally-diffused educational literature, in the form of papers, periodicals, and books, discussing in a broad and catholic spirit all the phases of the complicated problem of education in its relations to the individual and general welfare.

It is not necessary that each of these propositions should here be considered at length. The first and second will be at once accepted by every intelligent friend of public instruction. That the common school is indispensable to the general welfare, and that ample provision should be made for its support, none but an enemy of universal education will presume to deny. But the Third, Fourth and Fifth, are not so generally admitted ; and it seems necessary that the relations which the agencies for preparing teachers, and for supervision, sustain to the common-school system should be briefly pointed out. The last, or Sixth proposition, referring to the necessity of an elevated educational literature, needs no elaboration ; for that refers to an interest which may safely be left to the operation of the law of demand and supply. Private and professional interest, in a country where the press is not only free, but a colossal power for good, will eventually supply all that is required in this direction.

2. Relations of Normal Schools to the Common School System.—It is difficult to discover how those who admit the force of the axiom that the teacher makes the school, can deny the necessity of institutions for his special preparation. The maxim, *Poeta nascitur, non fit*, in its application to the teacher's profession, long since became obsolete. There is no longer any question in the minds of those that have

properly studied the subject, that *every person* has more or less of the talent requisite in the teacher. All are born with the same order of faculties. No sound mind is wholly destitute of reason, judgment, memory, imagination, association, &c. Firmness, decision, the power to communicate and to command, are vouchsafed in a greater or less degree to every individual, and each of these powers is susceptible of cultivation. That which is weak, may, by a judicious course of exercise, be developed and made comparatively strong. It is one of the functions of education to strengthen that which is weak, and to supply that which is wanting in the possibilities of our nature. Whatever may be regarded as the necessary natural endowments of a teacher, must be found to exist to some extent in all persons. Hence, by a proper system of special training, these natural endowments will be strengthened and the individual will be made capable of more acceptable service, than would be possible in the absence of such culture. Not that all can be rendered equally capable. Some, indeed, there are, that can never be made fully successful in this calling, that, under the most favorable conditions, may even utterly fail. The same will hold true in regard to all professions and occupations. But it is here insisted that by special training and preparation the *average quality* of the practitioners in any profession will be vastly improved, while those that have the requisite talents will be made capable of far higher achievements than if deprived of the facilities for a cultivation suited to their wants.

But experience has settled what reason and common sense had previously affirmed. The Normal school is no longer an experiment. It is no longer on trial. For more than a hundred and fifty years in Europe, and more than an entire generation in America, it has been

bringing forth fruits meet for its justification, and it has already taken its place as *an indispensable adjunct to a complete common school system*. It only remains to perfect and extend it, until it shall be able to yield a continuous supply of qualified teachers for all the schools of the nation. It may be said to stand to the common school, somewhat in the relation of a cause to its effect. The common school is nothing, or perhaps it may be worse than nothing, with an ignorant and unskillful teacher. It may be regarded as an engine, while the Teachers' Seminary supplies the right kind of power, without which the machinery, is useless, or is turned to evil account. The two are but parts of a symmetrical whole. There is, there can be, no competition, no antagonism of interests. Both should be cherished as the promoters of the highest welfare of the people, because by their combined and harmonious action they are to supply that mental and moral food that is the life and joy of a rational existence.

It is sometimes claimed that a thorough *knowledge of the subjects to be taught* is all that is necessary for successful teaching. But observation, reason, and experience alike concur in refuting this assumption. It is well known that many of the best scholars utterly fail as teachers. Why should this be the case, if mere literary attainments are sufficient? And if scholarship were the only condition essential to success, how is it that our high schools, academies, and colleges have never been able to give us a supply of competent instructors? It is admitted that scholarly attainments are indispensable.

But other qualifications are equally necessary. The power to communicate; a keen insight into, and a warm sympathy with the child's nature; a mastery of the art of questioning; the ability to command, control, and influ-

ence the young ; a knowledge of the history and nature of education ; of school organization and management, and of the best methods of conducting the complicated operations of the school,—all these and many other things, are quite as important as high attainments in literature, science, and the arts. There are *immutable principles* in education, and there are methods based upon them that must be modified according to the circumstances of time, place, and persons, under which they are to be applied. And more than this, the young teacher must be *trained* by *instruction*, *practice*, and criticism to a knowledge of these principles and methods, and to their judicious application to the details of school work. Education does not consist merely in imparting knowledge. It is rather *the formation of character* according to a high standard of manhood and womanhood. This great work must surely be considered not only as an art, but as really the *highest and most difficult of all arts*, with its conditioning principles lying down deep in the nature of man. These principles can not be learned and applied by the great mass of teachers unless taught in institutions especially set apart for the work. Hence, Normal schools must not only claim, but conquer and hold, a place in a complete system of education. This, indeed, they have already done, and will continue to do, until there shall be left none to question their necessity, or deny them their rights as a co-ordinate branch of the system.

It is not here assumed that all who are trained in a teachers' seminary will prove successful in the profession. To set up such a claim, would be not only to fly in the face of history, but it would be to claim more for the Normal school than for any other human instrumentality. Men fail in every profession and calling, even after hav-

ing made it a special study. There are lawyers without clients, clergymen without congregations, and physicians without patients. But no one will for this reason deny the necessity of the institutions that matriculated them. This may however be affirmed in every such case, that the quality of the work done *with the training* will be far superior to that produced without it. A large proportion of those specially-trained teachers who may not prove entirely successful in the work, would nevertheless have pursued it in the absence of such preparation. That the quality of their work is greatly improved by the advantages they have enjoyed, will hardly be questioned by any who will give to the subject the consideration that it deserves.

3. The Teachers' Institutes and Common Schools.—The point that teachers need special preparation for their work has already been established, both by reason and experience. The Normal school and the Institute are among the results of this conviction. They had their origin in a *felt necessity* for greater learning, skill, and devotion in the work of the school. In the present stage of their development, however, the Normal schools can supply but a small proportion of the teachers actually required to meet the public wants. They are gradually raising the standard of education, wherever they have been established. The schools taught by their graduates become new centers of influence radiating light in every direction. Eventually, they must be made co-extensive with the common school system of which they form a necessary part, and will be adequate to supply the demand for skilled labor in the educational field. In the meantime, the institutes must be brought into requisition to *reach the great mass of teachers* and afford them such special instruction as it may be practicable to sup-

ply. Their office is, to a certain extent, identical with that of the Normal schools, to make better teachers, while they serve the further valuable purpose of bringing together the members of a common profession, uniting them in the bonds of a common sympathy, and inspiring them with a generous enthusiasm in their great and important work. The amount of instruction that the institutes can impart is limited, it is true, but it serves a most valuable end in opening up to the teachers the avenues to professional improvement. Convened as they may be, each year, and at a different point in each county, every teacher who feels disposed to improve his professional qualifications may be brought under their influence. When thoroughly organized and wisely managed, they thus become invaluable as a means of elevating teachers and increasing the usefulness of the common schools. Their cost is trifling, while their influence upon public sentiment, as well as upon the teacher, is most decided and salutary. Their relations to the elementary schools are thus as intimate, although perhaps not so important, as the more permanent Teachers' Seminaries. They can not fail to be eventually and universally recognized as an indispensable element in a complete system of public instruction.

4. No School System complete without thorough supervision.—One of the most serious misfortunes attending the work of promoting the cause of public education is the fact that the masses of the people do not give the subject sufficient attention to enable them either fully to appreciate its importance or to comprehend the requisites to its complete success. The schools in which their children receive instruction, being close at hand, are the objects of their more especial care. If a school house has been provided, and a teacher

employed for a few months at a meager compensation, they give little thought to that which lies beyond the limited circle of their local interests. The qualifications of the teacher, the character of the school, and the conditions of its efficiency, are too often matters of indifference and neglect. The consequence is, that Supervision, and the special agencies for improving the teacher, like the Normal school and the Institute, are regarded as excrescences upon the school system, not essential to its thorough working, but as entailing upon the people a needless and burdensome expense. Hence, their existence is constantly menaced with, if not destroyed by, opposition, and they are prevented from realizing that full measure of usefulness they are so well calculated to secure. In all material enterprises, in all branches of business whose object is pecuniary gain, the necessity of intelligent and careful supervision is universally conceded. Deprived of it, no important undertaking can succeed. The merchant, the manufacturer, and the farmer, each wins the coveted prize of success in his business by carefully *superintending* its details. Our railway enterprises, our governmental machinery, our army and navy, are all organized and conducted upon the principle of subordination and supervision, such that each part and each person entering into the composition of the machinery is held to the strictest line of duty. And experience has demonstrated conclusively, that a system of schools without the exercise of this function of supervision and control, without agencies for the special preparation of teachers, is not a complete system, but merely a fragment, and, like a disordered machine, is incapable of fulfilling its beneficent designs. The utility of these adjuncts has been taught us by experience, the best of teachers. They are not merely a capri-

cious invention, a "new-fangled notion," but rather *an outgrowth of the necessities of a system of education* in a state of progress. So long as schools are needed for the education of the people, Normal schools, Institutes, and Supervision will be needed for perfecting the schools and enabling them to accomplish the purposes intended. As measures of economy, to secure a wise expenditure of the funds devoted to education, they more than justify many times their cost, while their moral and intellectual results are of a character to baffle all attempts at adequate computation.

Every citizen should therefore accept the situation, cease his opposition, and give to the *whole system*, the common school and its related agencies, a cordial and hearty support. Until this policy shall have been adopted and faithfully put in practice by the masses of the people, our schools can never adequately accomplish their beneficent purposes, or command that confidence and respect to which, as the promoters of civilization and progress, they are so pre-eminently entitled.

THE END.

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From Report of REV. W. T. BRANTLY, D.D., late Professor of Belles Lettres, University of Georgia, on "Text-Books in Reading," before the Teachers' Convention of Georgia, May 1, 1870.

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EXTRACT FROM THE PREFACE.

Success in teaching English orthography is still exceptional, and it must so continue until the principles involved are recognized in practice. Form is foremost: the eye and the hand must be trained to the formation of words; and since spelling is a part of writing, the written form only should be used. The laws of mental association, also—especially those of resemblance, contrast, and contiguity in time and place—should receive such recognition in the construction of the text-book as shall insure, whether consciously or not, their appropriate use and legitimate results. Hence, the spelling-book, properly arranged, is a necessity from the first; and, though primers, readers, and dictionaries may serve as aids, it can have no competent substitute.

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I have read with much interest the "One-Term History of the United States." I am much pleased with it. In my judgment, it contains all of the United States history that the majority of pupils in our common schools can spare time to study.

From PRES. EDWARD BROOKS, Millersville State Normal School, Pa.

It is a work that will be a favorite with teachers and pupils. Its scope and style especially adapt it for use in our public schools. I cordially commend it to teachers desiring to introduce an interesting and practical text-book upon this subject.

From PRES. BARKER, Buffalo State Normal School, N. Y.

In the copy of your "Brief History," before me, the important items to be learned in history seem most ingeniously brought out and kept in the foreground. These items are *time, persons, places, and events*. It has the appearance of an exceedingly fresh and systematic work. I think I shall put it into my classes.

From PROF. WM. F. ALLEN, State Univ. of Wisconsin.

I think the author of the new "Brief History of the United States" has been very successful in combining brevity with sufficient fullness and interest. *Particularly*, he has avoided the excessive number of names and dates that most histories contain. Two features that I like *very much* are the *anecdotes* at the foot of the page and the "*Historical Recreations*" in the Appendix. The latter, I think, is quite a new feature, and the other is *very* well executed.

From S. G. WRIGHT, Asstt.-Supt. Pub. Inst., Kansas.

It is with extreme pleasure we submit our recommendation of the "Brief History of the United States." It meets the needs of young and older children, combining concision with perspicuity, and if "brevity is the soul of wit," this "Brief History" contains not only that well-chosen ingredient, but wisdom sufficient to enlighten those students who are wearily longing for a "new departure" from certain old and uninteresting presentations of fossilized writers. We congratulate a progressive public upon a progressive book.

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(Signed) B. W. BAKER.

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From D. C. VAN NORMAN, *Principal Van Norman Institute, New York.*

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 For many similar testimonials, see current numbers of the *Illustrated Educational Bulletin*.

NATURAL SCIENCE—Continued.

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It is admirably concise, yet it does not seem to be deficient or obscure. In paper, print, and binding, the book leaves little to be desired.

From PRES. J. M. GREGORY, State Agricultural College, Ill.
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From PROF. A. WINCHELL, University of Michigan.
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From PROF. RICHARD OWEN, University of Indiana.
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From PRIN. B. R. ANDERSON, Columbus Union School, Wisconsin.
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NATURAL SCIENCE—Continued.

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I have examined Jarvis' "Physiology and Laws of Health," which you had the kindness to send to me a short time ago. In my judgment it is far the best work of the kind within my knowledge. It has been adopted as a text-book in our public schools.

From HENRY G. DENNY, Chairman Book Committee, Boston, Mass.

The very excellent "Physiology" of Dr. Jarvis I had introduced into our High School, where the study had been temporarily dropped, believing it to be by far the best work of the kind that had come under my observation; indeed, the reintroduction of the study was delayed for some months, because Dr. Jarvis' book could not be had, and we were unwilling to take any other.

From PROF. A. P. PEABODY, D.D., LL.D., Harvard University.

* * I have been in the habit of examining school-books with great care, and I hesitate not to say that, of all the text-books on Physiology which have been given to the public, Dr. Jarvis' deserves the first place on the score of accuracy, thoroughness, method, simplicity of statement, and constant reference to topics of practical interest and utility.

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Every human being is appointed to take charge of his own body; and of all books written upon this subject, I know of none which will so well prepare one to do this as "Jarvis' Physiology"—that is, in so small a compass of matter. It considers the pure, simple laws of health paramount to science: and though the work is thoroughly scientific, it is divested of all cumbrous technicalities, and presents the subject of physical life in a manner and style really charming. It is unquestionably the best text-book on physiology I have ever seen. It is giving great satisfaction in the schools of this city, where it has been adopted as the standard.

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NATURAL SCIENCE.

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The Peabody Correspondence.

NEW YORK, April 29, 1867.

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Boston, May 7, 1867.

MESSRS. A. S. BARNES & Co., PUBLISHERS, NEW YORK:

GENTLEMEN—Your communication of the 29th ult., addressed to the Trustees of the Peabody Education Fund, has been handed to me by our general agent, the Rev. Dr. Sears. I shall take the greatest pleasure in laying it before the board at their earliest meeting. I am unwilling, however, to postpone its acknowledgment so long, and hasten to assure you of the high value which I place upon your gift. Five thousand volumes of your "Teachers' Library," and twenty-five thousand volumes of "School-books for intermediate classes," make up a most munificent contribution to the cause of Southern education in which we are engaged. Dr. Sears is well acquainted with the books you have so generously offered us, and unites with me in the highest appreciation of the gift. You will be glad to know, too, that your letter reached us in season to be communicated to Mr. Peabody, before he embarked for England on the 1st inst., and that he expressed the greatest gratification and gratitude on hearing what you had offered.

Believe me, gentlemen, with the highest respect and regard, your obliged and obedient servant,

ROBT. C. WINTHROP, Chairman.

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